# 2003 3<sup>rd</sup> QUARTER GROUNDWATER MONITORING REPORT

# FOR

# FORMER ANGELES CHEMICAL COMPANY FACILITY 8915 SORENSEN AVENUE SANTA FE SPRINGS, CALIFORNIA

COPY

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#### 1.0) INTRODUCTION

Blakely Environmental Investigations, Inc. (BEII) was contracted by Greve Financial Services ((310) 753-5770) to perform quarterly groundwater monitoring at the former Angeles Chemical Company (ACC), Inc. facility located at 8915 Sorensen Avenue, Santa Fe Springs, California (See Figure 1, Site Location Map). The quarterly groundwater monitoring was requested by the Department of Toxics Substance Control (DTSC) correspondence dated September 18, 2001. This report presents the results of the 2003 3<sup>rd</sup> quarter monitoring episode performed from September 16 through 18, 2003.

#### 2.0) SITE LOCATION AND HISTORY

The site is approximately 1.8 acres in size and completely fenced. The site is bound by Sorensen Avenue on the east, Air Liquide Corporation to the north and northwest, Plastall Metals Corporation to the north, and a Southern Pacific Railroad easement and Mckesson Chemical Company to the south.

The property was owned by Southern Pacific Transportation Company and was not developed until 1976.

The ACC has operated as a chemical repackaging facility since 1976. A total of thirty-four (34) underground storage tanks (USTs) existed beneath the site. Two (2) USTs, one gasoline and one diesel, and sixteen (16) chemical USTs were excavated and removed under the oversight of the Santa Fe Springs Fire Department. All 16 remaining chemical USTs were decommissioned in place and slurry filled.

In January 1990, SCS Engineers, Inc. (SCS) conducted a site investigation. SCS advanced eight borings from 5' below grade (bg) to 50' bg. Soil samples collected and analyzed identified benzene, 1,1-Dichloroethane (1,1-DCA), 1,1-Dichloroethane (1,1-DCE), MEK, methyl isobutyl ketone (MIBK), toluene, 1,1,1 Trichloroethane (1,1,1-TCA), Tetrachloroethylene (PCE), and xylenes at detectable concentrations.

In June 1990, SCS performed an additional site investigation at the site by advancing six additional borings advanced from 20.5' bg to 60' bg. A monitoring well (MW-1) was also installed. Soil sample analysis identified detectable concentrations of the above mentioned VOCs in addition to acetone and methylene chloride. Dissolved benzene, 1,1-DCA, 1,1-DCE, PCE, Trichloroethylene (TCE), and trans-1,2-dichloroethene were detected in MW-1 above maximum contaminant levels.

Between 1993 and 1994, SCS performed further testing at the site. Soil samples were collected from nine borings. Five borings were converted to groundwater monitoring wells MW-2, MW-3, MW-4, MW-6, and MW-7 (See Figure 2, Well Location Map). The predominant compounds detected in soil were acetone, MEK, MIBK, PCE, toluene, 1,1,1-TCA, TCE, and xylenes. Groundwater sample collection performed in

February 1994 by SCS identified the following using EPA method 624 (laboratory results included in Remedial Investigation Report dated August 1994 by SCS):

MW-6 MW-7
- 465 · ·
2,260 2,130
<b>2019</b> 1;14031
1.240 1.51
11551 910 Co. 45
21 400 <50
2,130 134
13,500 398
第114,000 ± ± 90
1,320 45
4.710
μg/L μg/L

In 1996, SCS performed separate soil vapor extraction pilot testing beneath the site at approximately 10° bg and 22° bg. Laboratory analysis identified maximum soil vapor gas concentrations as 1,1,1-TCA (30,300 ppmV) with detectable concentrations of 1,1-DCE, TCE, methylene chloride, toluene, PCE and xylenes. The maximum radius of influence from the various extraction units used were measured as 35 feet at 10° bg and 80 feet at 22° bg.

In November 1997, SCS performed a soil vapor survey at the site. Soil vapor samples were collected at twenty-three locations at 5' bg. In addition, soil vapor samples were collected at 15' bg in five of the twelve sampling points. The soil vapor survey identified maximum volatile organic compound (VOC) contaminants near the railroad tracks on site, the location where a rail tanker reportedly had an accidental release.

In July 2000, BEII contracted BLC Surveying, Inc. to perform a site survey. Well locations were recorded using the California Plane coordinate systems. A copy of the survey is on file with the DTSC.

In September 2000, Blaine Tech Services, Inc. gauged the six on-site monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-6, and MW-7) under the supervision of BEII. Free product (FP) was identified in monitoring well MW-4 at 0.21-feet in thickness. Approximately 0.5 liters of FP were removed from the well and placed in a sealed 55-gallon drum.

BEII performed a soil vapor gas survey at the site from November 27 to December 1, 2000. A total of 36 soil vapor sample points, labeled SV1 through SV36, were selected by BEII and approved by the DTSC for analysis. Two discrete soil vapor samples were collected from each soil vapor sample point, one at 8' bg and one at 20' bg. SV1 was an exception since the first soil vapor sample was collected at 10' bg instead of

8' bg. Based on the soil vapor sample results, BEII identified relatively low level concentrations of VOCs in the silty clay soils at 8' bg. However, the concentrations of VOCs are significantly higher in the sandy soils at 20' bg in OU-1. Results were submitted to the DTSC by BEII in a Report of Findings dated January 10, 2001 with laboratory reports (BEII Report of Findings dated January 10, 2001).

On November 30, 2000, Blaine Tech Services, Inc. (Blaine) was contracted to perform groundwater sampling at the site. Groundwater monitoring wells MW-4 and MW-6 identified were not sampled due to the presence of free product. These wells were installed to monitor a perched groundwater body to the north. Free product was identified in MW-1 during sample collection, upon completion of well purging. The potentiometric groundwater level was above the well screen. Groundwater purging lowered the potentiometric level below the screened interval, allowing free product to enter. Groundwater sample analysis identified thirteen constituents of concern (COCs) in the dissolved phase as VOCs only. Laboratory analysis of metals and SVOCs identified concentrations below allowable levels for those constituents. Results were submitted by BEII to the DTSC in a Report of Findings dated January 10, 2001 with laboratory reports.

The remaining USTs have been excavated or slurry filled for closure under the supervision of the Santa Fe Springs fire Department. A report was be submitted to the DTSC upon completion by EREMCO.

BEII performed a soil gas survey on the ACC site from January 14 to January 17, 2002. The purpose of the soil gas survey was to determine the lateral extent of VOC soil vapors in the vadose zone along the eastern, northern, and southern property line of the site (OU-I an OU-2). In addition, BEII performed a SGS on June 13, 2002 on the Air Liquide property to determine the lateral extent of VOC soil vapors in the vadose zone north of the ACC facility (OU-1). Based on the soil gas survey results, BEII identified relatively low level concentrations of VOCs in the silty clay soils at 5' bg, 7'bg, 8' bg, 10' bg, and 12' bg (See Table I through Table 3 for soil gas results). However, the concentrations of VOCs are significantly higher in the sandy soils at 20' bg, which are more permeable and conducive to soil vapor migration. Furthermore, VOC soil gas concentrations were higher along the southern property line (OU-2) than along the east and north property line. Results were submitted by BEII to the DTSC in a Report of Findings dated October 15, 2002 with laboratory reports.

BEII advanced two soil borings (BSB-1 and BSB-2) and installed two groundwater monitoring wells (MW-8 and MW-9) on the ACC site from June 5 to June 7, 2002. The purpose of the drilling was to help define the lateral and vertical extent of impacted soil along the eastern ACC property line and to help determine the extent of impacted groundwater. Soil borings BSB-1 and BSB-2 were advanced to 50' bg and 30' bg, respectively. Monitoring wells MW-8 and MW-9 were installed to 40.5' bg and 45.5' bg, respectively. Soil sample results identified only four VOCs in the upper clay layer from 0' to approximately 20' bg. Total VOC soil concentrations averaged 56.66 µg/kg in the upper clay zone. Soil sample results identified elevated VOC concentrations in sand

with lower to no detectable concentrations in the underlying clay layer. The average total VOC soil concentrations were 53,125  $\mu$ g/kg in the permeable sand layer. The underlying clay layer identified an average total VOC soil concentration of 408  $\mu$ g/kg. Results were submitted by BEII to the DTSC in a Report of Findings dated October 15, 2002 with laboratory reports.

BEII advanced eight soil borings (BSB-3 through BSB-10) from 40' bg to 45' bg in August 2002 to help determine the extent of impacted soil. Laboratory results were submitted by BEII to the DTSC.

In November and December of 2002, BEII advanced seven borings (BSB-11 through BSB-17) and installed twelve monitoring wells (MW-10 through MW-21) to help define the extent of VOC impacted soil and groundwater. Monitoring well MW-1 was abandoned. Laboratory results were submitted by BEII to the DTSC.

In late June of 2003, BEII installed five monitoring wells (MW-22 through MW-26) to help define the extent of VOC impacted soil and groundwater. Monitoring wells MW-2, MW-3, and MW-7 were abandoned. Laboratory results were submitted by BEII to the DTSC.

## 3.0) REGIONAL GEOLOGY/HYDROGEOLOGY

The site is located near the northern boundary of the Santa Fe Springs Plain within the Los Angeles Coastal Plain at an elevation of approximately 150 feet above mean sea level. Surficial sediments consist of fluvial deposits composed of inter-bedded gravel, sand, silt, and clay. Available data from California Water Resources Bulletin No. 104 (June 1961) indicate that the surficial sediments may be Holocene and/or part of the upper Pleistocene Lakewood Formation, which ranges from 40 to 50 feet thick beneath the site. The Lakewood Formation has lateral lithologic changes with discontinuous permeable zones that vary in particle size. Stratified deposits of sand, silty sand, silt, and fine gravel comprising the upper portion of the lower Pleistocene San Pedro Formation underlies the Lakewood Formation.

The site lies within the Central Basin Pressure area, a division of the Central Ground Water Basin, which extends over most of the Coastal Plain. The Gasper aquifer, a part of the basal coarse unit of Holocene deposits, is found within old channels of the San Gabriel and other rivers. The Gasper aquifer may be 40-feet in thickness, with its base at a depth of about 80 to 100-feet bg. The underlying Gage aquifer is found within the Pleistocene Lakewood Formation. The Hollydale aquifer is the uppermost regional aquifer in the Pleistocene San Pedro Formation. Bulletin 104 indicates that this aquifer averages approximately 30-feet in thickness in this area, with its top at a depth of about 70 feet bg. The major water producing aquifers in the region are the Lynwood aquifer located approximately 200-feet bg, the Silverado aquifer located at approximately 275-feet bg, and the Sunnyside aquifer located at approximately 600-feet bg.

#### 4.0) SITE GEOLOGY/HYDROGEOLOGY

SCS identified silty clays with some minor amounts of silt and sand in the shallow subsurface from surface grade to approximately 15' bg. Below the silty clay, poorly sorted coarse-grained sand and gravel from 15' bg to 26' bg. SCS referenced a less permeable silty clay layer between 35' and 50' bg, which contained stringers of fine sand and silt that is part of the Gaspur/Hollydale aquifer.

A perched aquifer was encountered at approximately 23' bg by SCS and referenced as such by SCS. Based on a review of McKesson files, Harding Lawson Associates (HLA) stated that in January 1975 prior to McKesson operating their neighboring facility, no groundwater was encountered to a depth of 45' bg beneath the McKesson property. In March 1986, during operation of the neighboring McKesson facility, groundwater was encountered at 22' bg beneath the McKesson property as stated by HLA. Based on the HLA statements, BEII concludes with SCS that the first encountered groundwater is part of a shallow perched aquifer. The sediments within this perched aquifer appear to be consistent with the Gasper Aquifer. Monitoring wells MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-16, MW-18, MW-19, MW-22, and MW-26 will be noted as Gasper monitoring wells with groundwater at approximately 32' bg. The water identified in monitoring well MW-4 at 26.41' bg is more than likely residual groundwater contained in the well sump and will not be incorporated in the gradient.

SCS also referenced that the Gaspur/Hollydale Aquifer was encountered at 20' to 35' bg beneath the site. Further review of Bulletin 104 by BEII and DTSC, identified that the SCS referenced Gaspur/Hollydale Aquifer was in fact the Gage/Hollydale Aquifer. Monitoring wells MW-2, MW-3, MW-13, MW-14, MW-15, MW-17, MW-20, MW-21, MW-23, MW-24, and MW-25 will be noted as Gage/Hollydale monitoring wells since they are screened in that deeper groundwater which is now at approximately 40' bg.

The groundwater gradient flowed historically to the southwest as identified by SCS. In September 2003, the shallow groundwater was identified at depths between 31.68' bg to 39.87' bg beneath the site. The potentiometric groundwater flow direction of this shallow zone (Gasper Aquifer) is away from the high point (MW-10) with a hydraulic gradient of 0.025 ft/ft to the north and 0.056 to 0.11 ft/ft to the south (See Figure 3). Groundwater in the deeper Gage/Hollydale was identified at depths between 39.55' bg to 44.35' bg beneath the site. The potentiometric groundwater flow in the Gage/Hollydale Aquifer is to the west-southwest direction with a hydraulic gradient of 0.01 ft/ft (See Figure 4).

## 5.0) GROUNDWATER MONITORING PROTOCOL

The purpose of the proposed groundwater monitoring was to provide data regarding the piezometric surface, water quality, and the presence of free product (FP), if

any on a quarterly basis to the DTSC. Groundwater monitoring consisted of such activities as water level measurement, well sounding for detection of FP, collection of groundwater samples, field analysis, laboratory analysis, and reporting. The proposed work was performed as follows:

The depth to groundwater was measured in each well using a decontaminated water level indicator capable of measuring to with 1/100th of a foot. Prior to and following collection of measurements from each well, the portions of the water level indicator entering groundwater were decontaminated using a 3-stage decontamination procedure consisting of a potable wash with water containing Liquinox soap followed by a double purified water rinse. Wells were monitored in the order of least contaminated to the most contaminated based on past analysis. For the ACC wells, the following order of wells was followed: MW-23, MW-24, MW-25, MW-14, MW-17, MW-20, MW-15, MW-21, MW-13, MW-12, MW-9, MW-16, MW-22, MW-26, MW-18, MW-11, MW-10, MW-4, MW-6, and MW-8.

The well box and casing were opened carefully to preclude debris or dirt from falling into the open casing. Once the well cap was removed, the water level indicator was lowered into the well until a consistent tone was registered. Several soundings were repeated to verify the measured depth to groundwater. The depth of groundwater was measured from a reference point marked on the lip of each well casing. A licensed surveyor has surveyed the elevation of each reference point. The result was recorded on the field sampling log for each well. Other relevant information such as physical condition of the well, presence of hydrocarbon odors, etc. was also recorded as appropriate on the field sampling log.

The well sounder used for this project was equipped to measure free product (FP) layers thicker than 0.1 inches. FP was indicated as light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL).

Groundwater purging was conducted immediately following the collection of a groundwater depth measurement from all monitoring wells. Groundwater samples were analyzed for the following constituents (new wells for TPH-gas and VOCs only):

- Volatile organic compounds (VOCs) using EPA Method 8260B to include all Tentatively Identified Compounds (TICs).
- Total Petroleum Hydrocarbons as gasoline (TPH-gas) using EPA Method 8015 modified.
- Total dissolved solids (TDS) using EPA Method 160.1.
- Nitrates, chloride, sulfate, sulfide, ferrous iron, and manganese using EPA Methods 352.1, 325.3, 375.4, 376.1, 7380, and 7460, respectively.
- Alkalinity, carbonates, and bicarbonates using EPA Methods 310.1 and Standard Method 4500.
- Total organic carbon (TOC) and dissolved organic carbon (DOC) using EPA Method 415.1.

# 5.1) Well Purging and Measurement of Field Parameters

Wells were purged in the above mentioned order (see Section 5.0) to minimize the potential for cross contamination. The wells were purged by Blaine Tech Services, Inc (Blaine) and sampled by BEII from September 16 through 18, 2003 in the presence of Mr. Sanford Britt of the DTSC. The purge protocol was presented in the Field Sampling Plan as Appendix A in the Groundwater Monitoring Work Plan dated October 23, 2001 and submitted to the DTSC.

Prior to purging, casing volumes was calculated based on total well depth, standing water level, and casing diameter. One casing volume was calculated as:

$$V = \pi (d/2)^2 h \times 7.48$$

where:

V is the volume of one well casing of water (in gallons, I  $ft^3 = 7.48$  gallon);

d is the inner diameter of the well casing (in feet); and h is the total depth of water in the well - the depth to water level (in feet).

A minimum of three casing volumes of water was purged from each well. Water was collected into a measured bucket to record the purge volume. All purged groundwater was containerized in 55-gallon hazardous waste drum for disposal at a later date.

After each well casing volume was purged; water temperature, pH, specific conductance (EC), and turbidity were measured using field test meters and the measurements were recorded on Well Monitoring Data Sheets (See Appendix A). Samples were collected after these parameters have stabilized; indicating that representative formation water has entered the well. The temperature, pH, and specific conductance should not vary by more than 10 percent from reading to reading. Turbidity should be less then 5 NTUs, however, the purging process stirred up silty material in each well which made the turbidity measurements of 5 NTUs unattainable. Groundwater samples were collected after water levels recharged to 80 percent of the static water column. Notations of water quality including color, clarity, odors, sediment, etc. were also noted in the data sheets.

All field meters were calibrated according to manufacturers' guidelines and specifications before and after each day of field use. Field meter probes were decontaminated before and after use at each well. The pH, conductivity, and temperature were measured with a Myron-L Ultra Meter and turbidity was measured with a HF Scientific DRT-15C meter. The calibration standards used for pH were 4 and 7 with expiration dates of December 2003. Conductivity was

calibrated to a 3900 µs standard with an expiration date of December 2003. A 0.02 NTU standard was used to calibrate the turbidity with an expiration date of December 2003.

#### 5.2) Well Sampling

Groundwater samples were collected by lowering a separate disposable bailer into each well. Groundwater was transferred from the bailer directly into the appropriate sample containers with preservative, if required, chilled, and processed for shipment to the laboratory. When transferring samples, care was taken not to touch the bailer-emptying device to the sample containers. Water samples were transported to Southland Technical Services, Inc., a certified laboratory by the California Department of Health Services (Cert. #1986) to perform the requested analysis.

Groundwater samples were collected from monitoring wells MW-23, MW-24, MW-25, MW-14, MW-17, MW-20, MW-15, MW-21, MW-13, MW-12, MW-9, MW-16, MW-26, MW-18, MW-11, MW-10 only. Monitoring wells MW-6, MW-8, and MW-19 identified FP as LNAPL at a thickness of 0.08', 0.42' and 0.83', respectively. The FP thickness in MW-6 is assumed based on the depth of the well bottom since no water was identified in the well.

Vials for VOC and TPH analysis were filled first to minimize aeration of groundwater collected in the bailer. The laboratory provided vials containing sufficient HCl preservative to lower the pH to less than 2. The vials were filled directly from the bottom-emptying device. The vial was capped with a cap containing a Teflon septum. Blind duplicate samples for the laboratory were labeled as "MW-1" and "MW-2" and were collected from monitoring wells MW-24 and MW-15, respectively. All vials were inverted and tapped to check for bubbles to insure zero headspace.

New nitrile gloves were worn during by sampling personnel for each well to prevent cross contamination of the samples. A solvent free label was affixed to each sample container/vial denoting the well identification, date and time of sampling, and an identifying code to distinguish each individual bottle.

#### 5.3) Sample Handling

VOA vials, including laboratory trip blanks, were placed inside of one new Ziplock bag per well and stored in a cooler chilled to approximately 4°C with bagged ice. Water samples were logged on the chain-of-custody forms immediately following sampling of each well to insure proper tracking through analysis to the laboratory.

#### 5.4) Waste Management

FP, purged groundwater, and decontamination water were stored in sealed 55-gallon drums for a period not to exceed 90 days. Stored wastes will be profiled for hazardous constituents and characterized as Non-Hazardous, California Hazardous, or RCRA Hazardous, as appropriate. Any transportation of waste will be under appropriate manifest.

#### 6.0) FREE PRODUCT

Monitoring wells MW-6, MW-8, and MW-19 identified FP as LNAPL at a thickness of 0.08-feet, 0.42-feet, and 0.83-feet, respectively. A total of 2.5 gallons of FP was recovered from MW-6, 11 gallons of FP was recovered from MW-8, and 1.5 gallons of FP was recovered from MW-19 to date.

Laboratory analysis of the FP was performed in June 2002 and identified dissolved TPH-gas at 812,000 mg/L from MW-6 and 801,000 mg/L from MW-8. Concentrations of dissolved TPH as diesel were also identified in FP as 53,400 mg/L from MW-6 and 56,600 mg/L from MW-8. No detectable concentrations of TPH as motor oil were identified in FP collected from both wells. Previous laboratory analysis of FP collected from monitoring well MW-6 identified 1,1,1-TCA at 28,100 mg/L, 1,2,4-Trimethylbenzene at 22,100 mg/L, Xylenes at 10,370 mg/L, Toluene at 9,010 mg/L, 1,3,5-Trimethylbenzene at 5,400 mg/L, and Ethylbenzene at 4,320 mg/L.

# 7.0) GROUNDWATER SAMPLE RESULTS

Groundwater samples collected from the shallow zone (Gasper) monitoring wells MW-9, MW-10, MW-11, MW-12, MW-16, MW-18, and MW-26 in September 2003 contained TPH-gas ranging from 69,600 µg/L in MW-10 to 1,280 µg/L in MW-9. Laboratory results are included as Appendix B. Dissolved TPH-gas concentrations averaged 29,706 µg/L in the shallow Gasper Aquifer, a decrease from the 47,969 µg/L average identified in March 2003. See Table 1 and Figure 5 for dissolved TPH-gas concentrations.

Groundwater samples collected from the deeper zone (Gage/Hollydale) monitoring wells MW-13, MW-14, MW-15, MW-17, MW-20, MW-21, MW-23, MW-24, and MW-25 in September 2003 contained TPH-gas ranging from 998  $\mu$ g/L in MW-21 to non-detect (<50  $\mu$ g/L) in MW-17, MW-20, MW-23, MW-24, and MW-25. The concentrations of dissolved TPH-gas averaged 185  $\mu$ g/L in the deeper Gage/Hollydale Aquifer, a decrease from the 3,793  $\mu$ g/L average identified in March 2003. See Table 1 and Figure 6 for dissolved TPH-gas concentrations.

Concentrations of dissolved BTEX ranged between 20,540  $\mu$ g/L in MW-26 to <69.5  $\mu$ g/L in MW-12 from the shallow Gasper Aquifer (See Figure 5 and Table 2). The less than value includes those concentrations reported as Practical Quantitation Limit

(PQL), which is defined as the method detection limit multiplied by the dilution factor (See Appendix B for laboratory results). The average dissolved BTEX concentration in the Gasper from the 2003 third quarter sampling was  $<7,860 \mu g/L$ , an increase from  $<6,330 \mu g/L$  from the previous sampling episode.

Dissolved BTEX in the deeper Gage/Hollydale Aquifer ranged between 161.5  $\mu$ g/L in MW-21 to <4  $\mu$ g/L in MW-17, MW-20, MW-23, MW-24, and MW-25 (See Figure 6 and Table 2). The 2003 third quarter sample episode identified an average dissolved BTEX concentration of <23  $\mu$ g/L in the Gage /Hollydale, a decrease from <486  $\mu$ g/L the previous sampling episode.

Groundwater sample results from the shallow Gasper Aquifer identified relatively high VOC concentrations compared to the low VOC concentrations in the deeper Gage/Hollydale Aquifer (See Table 2 and Appendix B for laboratory results).

Concentrations of dissolved PCE and TCE were identified at a maximum concentration of 2,930  $\mu$ g/L from MW-26 and 2,530  $\mu$ g/L from MW-16, respectively, in the shallow Gasper zone (See Figure 7). The average dissolved PCE and TCE concentrations for the third quarter 2003 were <571  $\mu$ g/L and <762  $\mu$ g/L, respectively. Maximum concentrations of dissolved PCE and TCE in the Gage/Hollydale were detected as 232  $\mu$ g/L and 180  $\mu$ g/L, respectively in groundwater collected from MW-21 (See Figure 8). The third quarter average PCE and TCE dissolved concentrations in the deeper Gage/Hollydale zone were <60  $\mu$ g/L and <38  $\mu$ g/L, respectively.

Dissolved concentrations of 1,1,1-TCA were identified in the shallow Gasper Aquifer at a maximum of 4,510  $\mu$ g/L in MW-10 (See Figure 7). Monitoring well MW-18 located downgradient of MW-10 identified dissolved 1,1,1-TCA as 420  $\mu$ g/L. The average dissolved 1,1,1-TCA concentration in the Gasper Aquifer was identified as <978  $\mu$ g/L this quarter, a decrease from <7,169  $\mu$ g/L identified the previous quarter. Lower concentrations of dissolved 1,1,1-TCA were detected in the deeper Gage/Hollydale Aquifer at a maximum of 150  $\mu$ g/L in MW-21 (See Figure 8). No significant concentrations of 1,1,1-TCA were detected in all other Gage/Hollydale Aquifer monitoring wells.

Groundwater samples were also analyzed for 1,4-Dioxane, a preservative used in 1,1,1-TCA to prolong its shelf life. However, 1,4-Dioxane is more miscible in groundwater than 1,1,1-TCA and will often lead the dissolved 1,1,1-TCA plume. Monitoring well MW-9 identified the maximum detectable concentration of dissolved 1,4-Dioxane at 7,150  $\mu$ g/L in the Gasper Aquifer. Monitoring wells MW-10, MW-11, MW-16, MW-18, and MW-26 identified dissolved 1,4-Dioxane concentrations between <10,000  $\mu$ g/L and <1,250  $\mu$ g/L due to high dilution factors. The maximum detectable dissolved 1,4-Dioxane concentration in the Gage/Hollydale Aquifer was 88  $\mu$ g/L in MW-20. Gage/Hollydale monitoring wells MW-13, MW-14, MW-15, MW-17, MW-21, MW-

23, MW-24, and MW-25 contained dissolved 1,4-Dioxane concentrations between  $<250 \mu g/L$  and  $<50 \mu g/L$  due to dilution factors.

Concentrations of dissolved chlorinated VOC daughter products were relatively elevated compared to their respective parent VOCs and also showed a trend of higher dissolved concentrations in the shallow Gasper Aquifer compared to the deeper Gage/Hollydale Aquifer.

1,1-DCA is a daughter product from reductive dehalogenation of 1,1,1-TCA and from carbon-carbon double bond reduction of 1,1-DCE, another daughter product. Dissolved 1,1-DCA concentrations were identified between 505  $\mu$ g/L and 47,400  $\mu$ g/L in the Gasper Aquifer (See Figure 7). The greatest dissolved 1,1-DCA concentration was observed in MW-10. The average dissolved 1,1-DCA concentration in the shallow Gasper zone was identified as 15,145  $\mu$ g/L this quarter, an increase since the previous quarter average of 11,693  $\mu$ g/L. Dissolved 1,1-DCA concentrations in the Gage/Hollydale Aquifer ranged between <2  $\mu$ g/L and 1,370  $\mu$ g/L (See Figure 8). Monitoring well MW-21 located along the southwest property boundary contained the highest dissolved 1,1-DCA concentrations in the Gage/Hollydale Aquifer as 1,370  $\mu$ g/L. The second highest dissolved 1,1-DCA concentration identified from MW-14 was only 101  $\mu$ g/L. The average dissolved 1,1-DCA concentration in the Gage/Hollydale Aquifer this quarter was <178  $\mu$ g/L, a decrease from the second quarter average (<261  $\mu$ g/L).

Dissolved 1,1-DCE, a daughter product of the dehydrohalogenation of 1,1,1-TCA and reductive dehalogenation of TCE, was identified at concentrations ranging from 14.5 μg/L to 5,600 μg/L in the shallow Gasper zone (See Figure 7). The maximum dissolved 1,1-DCE concentration was observed in MW-26. The next largest dissolved 1,1-DCE concentration was identified as 4,260 μg/L in groundwater collected from MW-18. The average dissolved 1,1-DCE concentration in the Gasper Aquifer this quarter was 2,396 μg/L, a decrease from the previous average of 4,134 μg/L in June 2003. Dissolved 1,1-DCE concentrations in the Gage/Hollydale Aquifer ranged between <2 μg/L and 1,800 μg/L (See Figure 8). Gage/Hollydale monitoring well MW-21 located along the southwest property boundary contained the maximum dissolved 1,1-DCE concentration (1,800 μg/L). The average dissolved 1,1-DCE concentration in the Gage/Hollydale Aquifer this quarter was <252 μg/L.

Cis-1,2 DCE is also a daughter product of the dehydrohalogenation of 1,1,1-TCA and reductive dehalogenation of TCE. Concentrations of dissolved cis-1,2-DCE were identified between 8  $\mu$ g/L and 15,900  $\mu$ g/L in the Gasper Aquifer (See Figure 7). The greatest dissolved cis-1,2-DCE concentration was observed in MW-18. The average dissolved cis-1,2-DCE concentration in the Gasper Aquifer this quarter was <5,132  $\mu$ g/L, a decrease from the second quarter average of <7,737  $\mu$ g/L. Dissolved cis-1,2-DCE concentrations in the Gage/Hollydale Aquifer ranged between <2  $\mu$ g/L and up to a maximum of 2,450  $\mu$ g/L identified from MW-21 (See Figure 8). Gage/Hollydale monitoring well MW-15 contained the second largest dissolved 1,1-DCE concentration

of 436  $\mu$ g/L. The average dissolved cis-1,2-DCE concentration in the Gage/Hollydale Aquifer this quarter was <331  $\mu$ g/L, a decrease from the previous quarterly average of <839  $\mu$ g/L.

Vinyl chloride (VC) is a by-product from the dehydrohalogenation and reductive dehalogenation of the chlorinated VOC daughter products mentioned above. Similar to the other VOCs, concentrations of dissolved VC were at lower concentrations in the deeper Gage/Hollydale than in the shallow Gasper zone. Dissolved VC concentrations were identified between 36  $\mu$ g/L and 4,510  $\mu$ g/L in the shallow Gasper zone (See Figure 7). Monitoring well MW-10 contained the largest dissolved VC concentration in the Gasper. However, dissolved VC concentrations in the Gage/Hollydale ranged from <2  $\mu$ g/L to 51  $\mu$ g/L (See Figure 8). The maximum dissolved VC concentration was located along the southwest property line in monitoring well MW-15.

Maximum dissolved concentrations of acetone and MEK were identified in Gasper monitoring well MW-10 as 73,000  $\mu$ g/L and 58,000  $\mu$ g/L, respectively (See Figure 9). Groundwater collected from MW-18 also identified elevated concentrations of dissolved acetone as 44,200  $\mu$ g/L and dissolved MEK as 32,000  $\mu$ g/L. Note the high dissolved concentrations of acetone and MEK in monitoring well MW-26 located along the southern property line. Average concentrations of dissolved acetone and MEK in the Gasper Aquifer this quarter were 21,262  $\mu$ g/L and 15,252  $\mu$ g/L, respectively. No detectable concentrations of acetone or MEK were identified above method detection limit from the 2003 third quarter groundwater monitoring episode in the Gage/Hollydale Aquifers (See Figure 10). However, the detection limits were <25  $\mu$ g/L in some samples due to dilution factors.

Maximum dissolved methylene chloride concentrations were identified in MW-26 at 14,600 from the shallow Gasper zone and <4 from all the Gage/Hollydale Aquifer monitoring wells sampled (See Figures 9 and 10). No other detectable concentrations of dissolved methylene chloride were identified. The detection limits for dissolved methylene chloride were high in some samples (<400  $\mu$ g/L) due to the high dilution factors.

Most groundwater samples were also analyzed for biodegradation indicators (See Table 3 for laboratory results). Further comparative data needs to be acquired prior to evaluating biodegradation processes. Subsequent groundwater analysis will include these biodegradation indicators.

#### 8.0) CONCLUSIONS

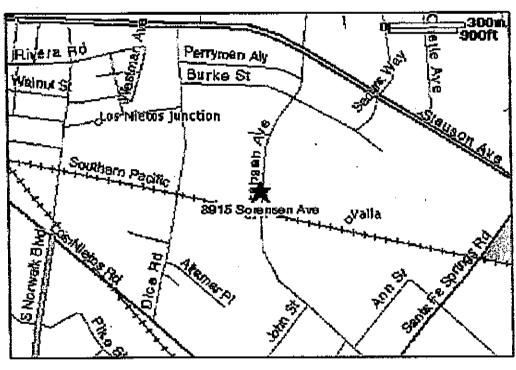
Based on the recent groundwater sample results, BEII concludes that the site is impacted by dissolved VOCs in both the Gasper and Gage/Hollydale Aquifers. Dissolved VOC concentrations, however, were detected at higher concentrations in the shallow Gasper zone compared to the Gage/Hollydale Aquifer. Gasper monitoring wells

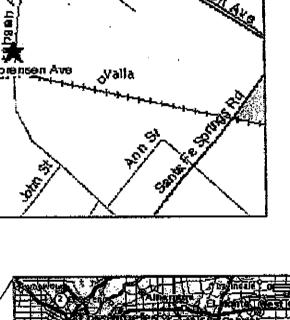
located next to MW-6, MW-8, and MW-19 contained elevated dissolved VOC concentrations. This is expected since these wells contain free product. Gage/Hollydale monitoring wells located along the southern property boundary contained the maximum dissolved VOC concentrations in that aquifer.

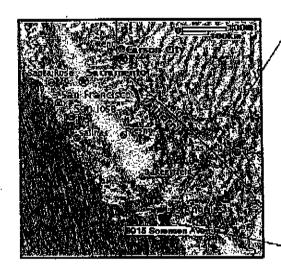
BEII also concludes that the recent groundwater sampling data provides preliminary support that the site has potential for intrinsic biodegradation. Dissolved parent VOC (PCE and TCE) concentrations were identified at concentrations  $\leq 2,930$  µg/L. 1,1,1-TCA was the only parent VOC that was identified at greater than 4,500 µg/L. Daughter VOC constituents such as 1,1-DCA, 1,1-DCE, cis-1,2-DCE, and VC identified dissolved concentrations of up to 47,400 µg/L. The low parent VOC concentration to high daughter VOC concentration ratio is a preliminary indicator of intrinsic biodegradation. However, further groundwater monitoring is needed to determine whether intrinsic biodegradation is occurring.

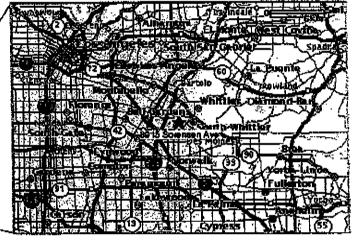
#### 9.0) RECOMMENDATIONS

BEII recommends that quarterly groundwater monitoring for VOCs and TPH-gas be continued at the former ACC property. BEII further recommends that free product removal be performed on a monthly basis to reduce its mass.







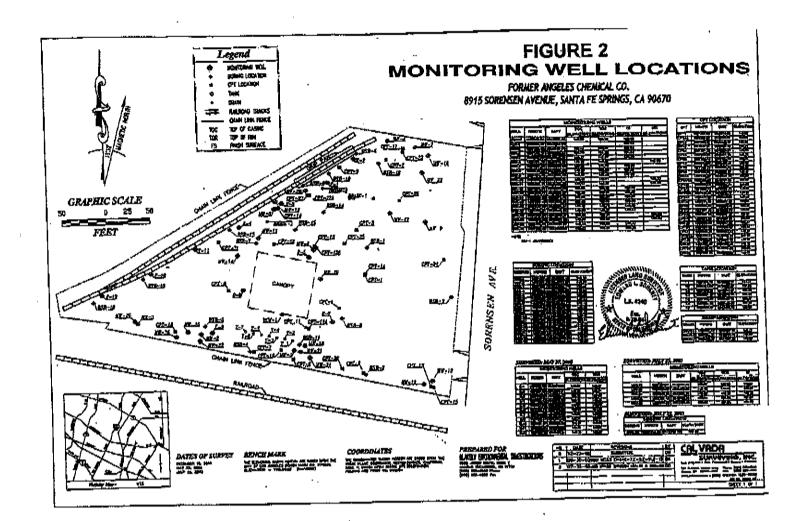


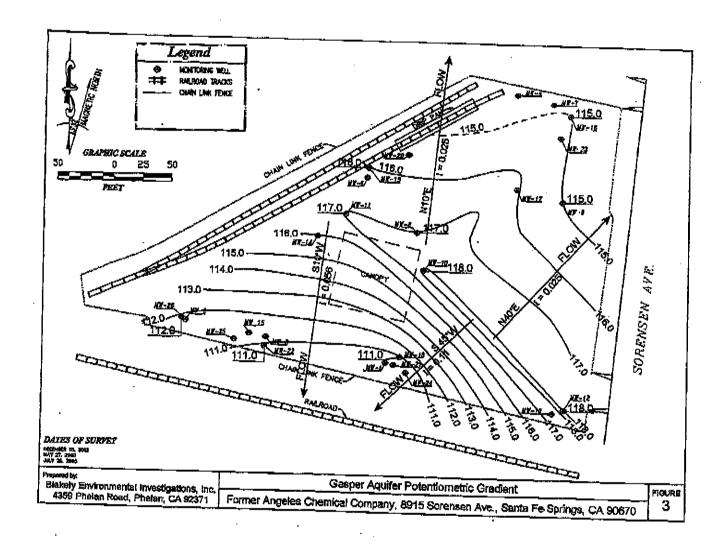
Blakely Environmental
Investigations, Inc.
4359 Phelan Road
Phelan, CA 92371

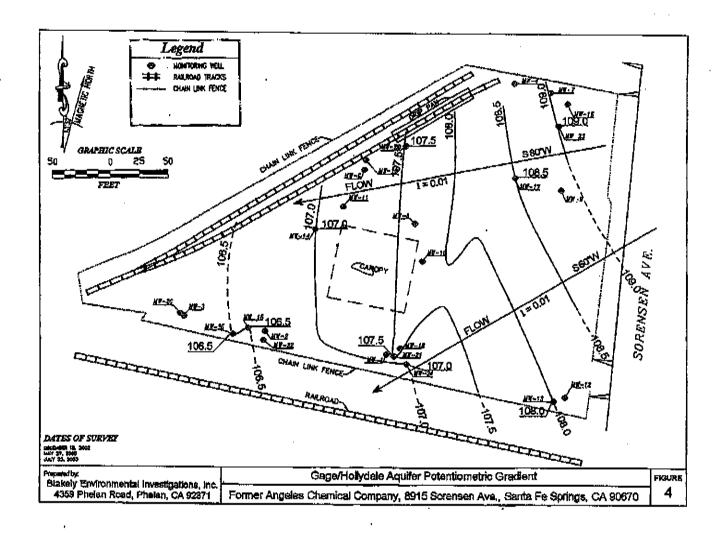
Site Location Map

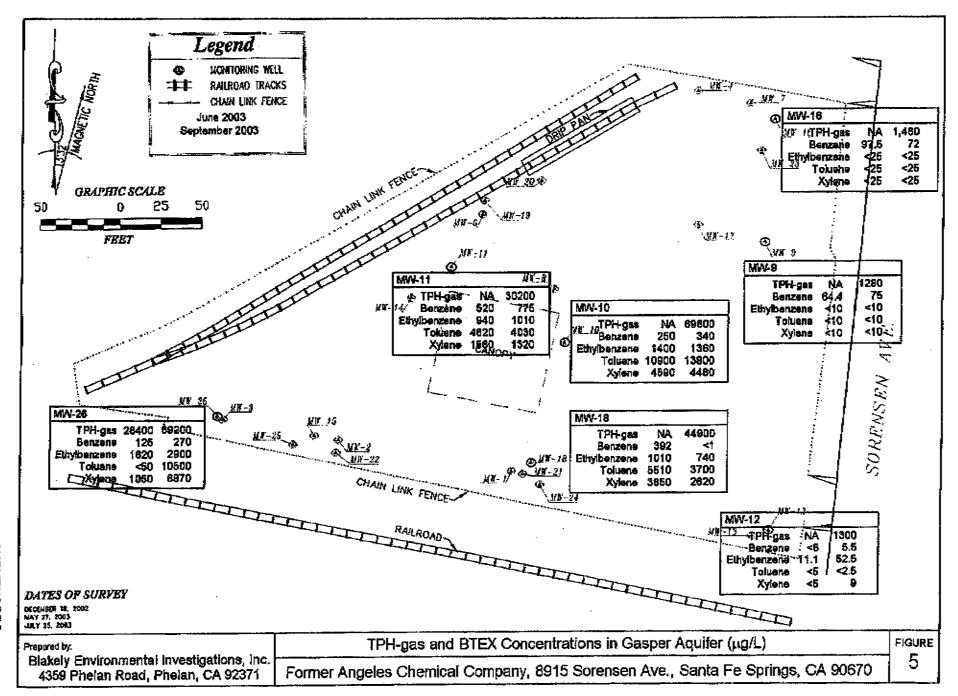
**FIGURE** 

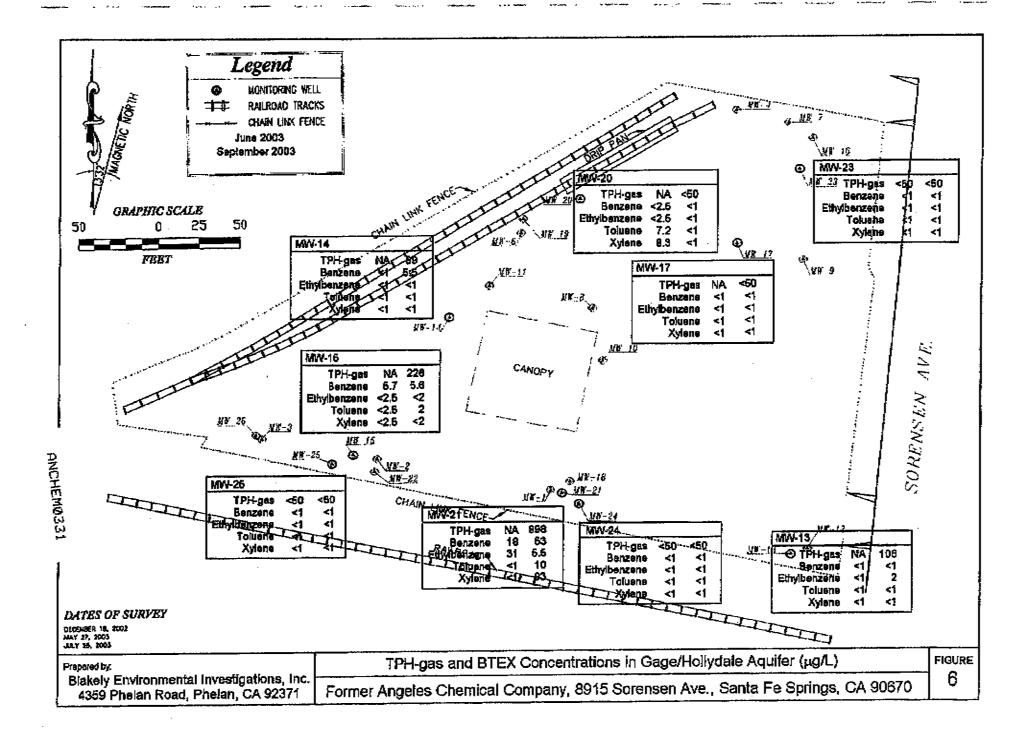
Former Angeles Chemical Company 8915 Sorensen Ave., Santa Fe Springs, CA 90670

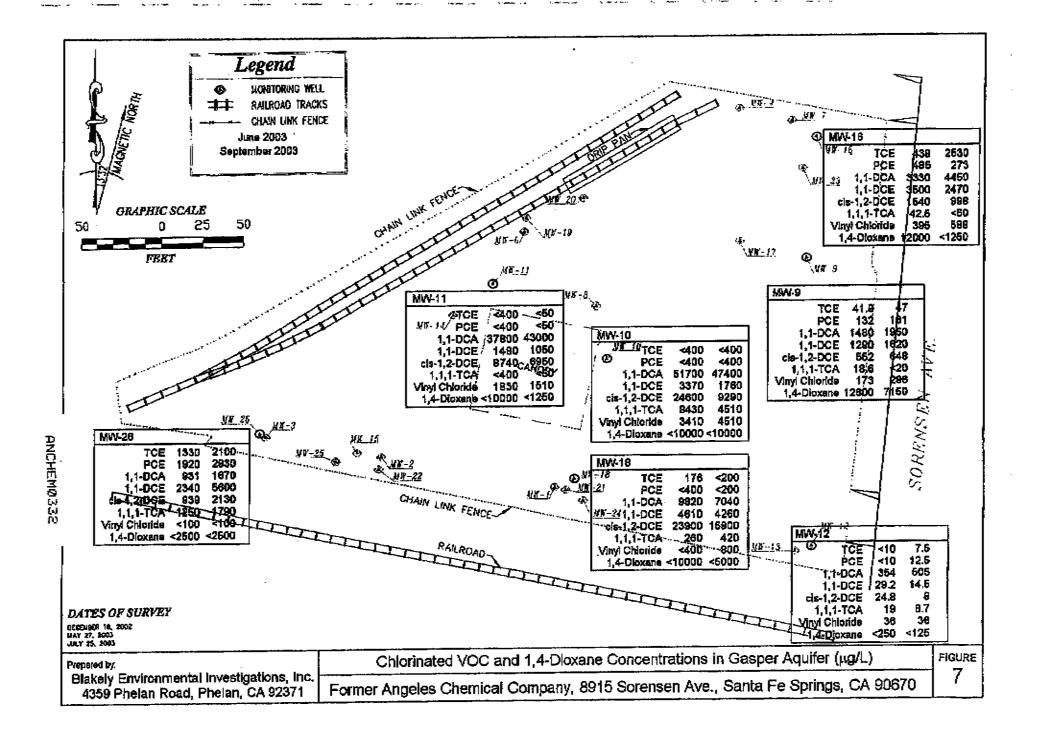


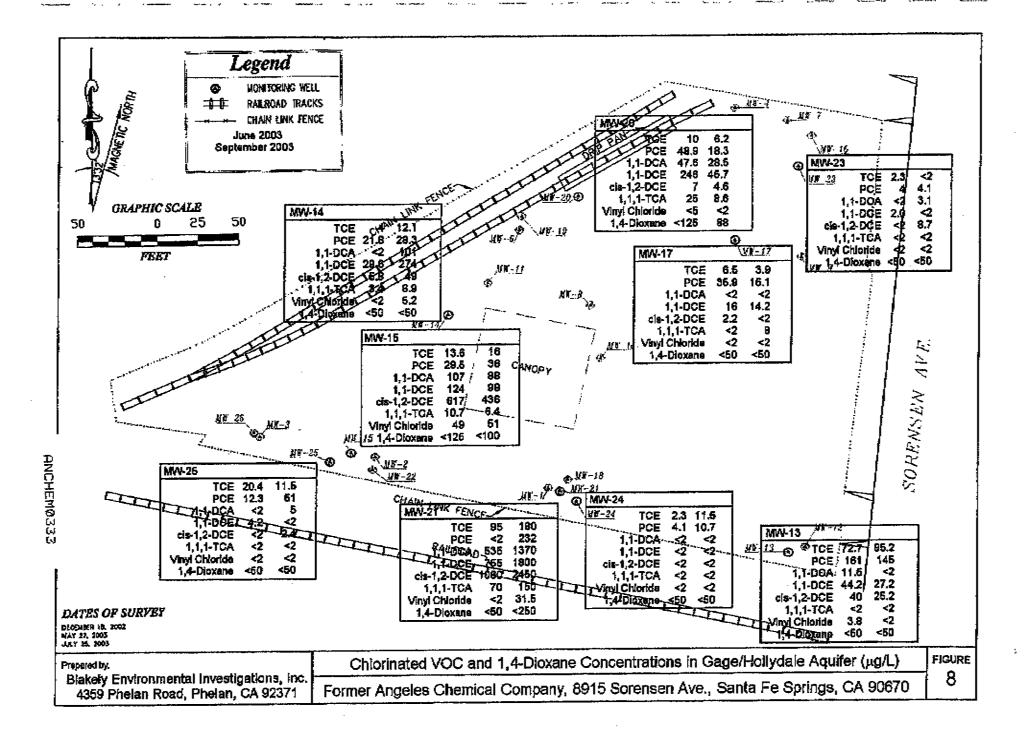


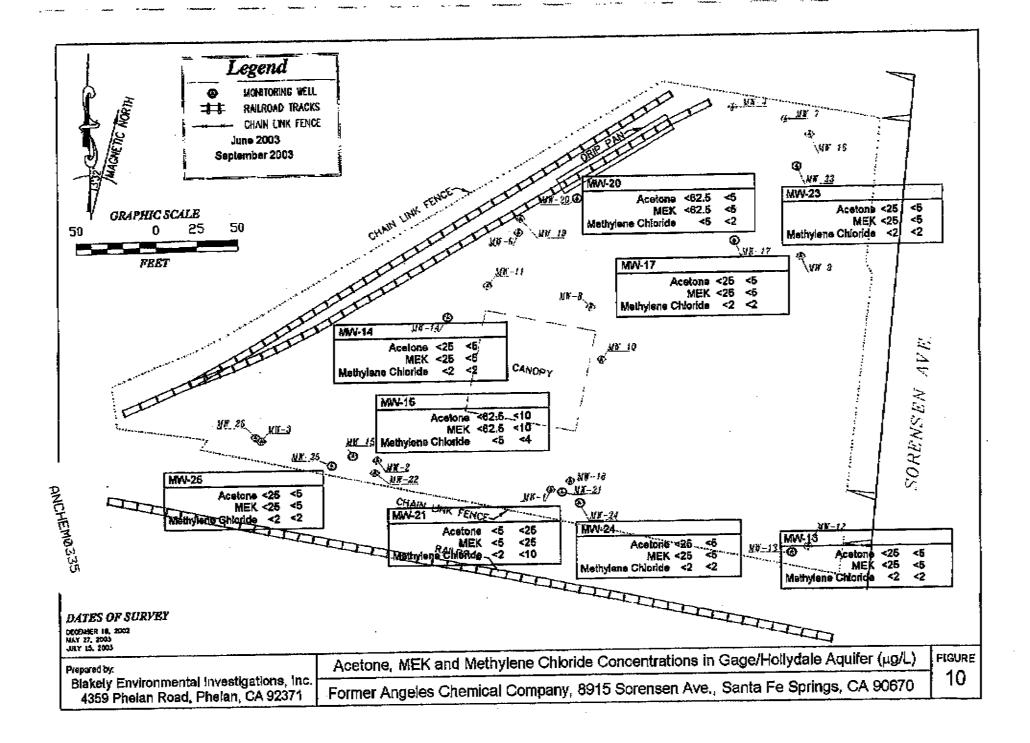












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Compound	Date:	904.2	MIN-3	100-7	MW-3	MALTO	1866-11	**************************************	184-43	MALTA.	Uner AR	Mary 18	MAN-17	April 44	Edward A.A.			<u> </u>		100021-008	h A Ballad a
Y03		1,100	1,220	1,690	1,740	1.970	2.250	658	1,200	1.450	1,630	1.000	1,400	1.720		1 1.700	1.950	MA-33	MIN-CS	11/4-4D	1000
	840-03	NA.	, MY	NA	1,600	2,360	1,935	736	1,165	1,205	1,196	1,035	1 675	(33	7	1,245		630	775	676	1,40
Total Alkadoky	Jan-03	-250	840	-894	526	480	960	290	430	433	455	604	450	1,525	1,421	435	472				
	3ap-01	NA		ÑA	545	980	963	498	471	-36	448	900	478	- bas	T T	433	400	235	256	368	871
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	340-03	NA.	MA	. NA	684	134	1,178	469	507	444	587	728	576	1,146	_ <del>**</del>	818	522	262	566	420	1 50
Chloride	Jun-02	99.3	777	298	341	363	425	70.9	101	922		227	96.4	284		201.0	-				
	8ep-03	MA	N/A	MA	241	810	283	37	90	- 44	100	200	176	<del>744</del>	1,190	87.0	67,0	77	74	85	32
Sultrin	App-93	-40.02	1.0	9.54	50.02	0.4	3388	<b>40.00</b>	-01.62	-0.63			40.00						,		
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Sultiva	Jan-03	65.2	32.5	13	264	8,67			214											1	
	Sep-03	- 744	NA	NA	236		7.0	108 86	230	102	279	104 76	208	29.3	- 37	173	280	115	154	210	-
Nitrate	Juo-CO	92.5	-5.04	2.16																	<u> </u>
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Mangaonna	Jun-03	-≼t_1 NA	I NA	0.87 NA	1 6,07	1.44 5.24	0.7	1.0	40.1	-0.1	9.1	0.6	-6,1	0.04	1,77	40.7	0.43				
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# Appendix A

#### WELL GAUGING DATA

Project # 030916-70-1 Date 9/16/03 Client Blakely Env.

Site 8915 Sopposen Que, Santa Fe Speings angeles Chem. Co.

	T17-11			Thickness	Volume of		<u> </u>	<u> </u>
	Well Size	Sheen/	Depth to	of Immiscible	Immiscibles Removed	Thanks do	<b>75_45</b> 4	Survey
Well ID	(in.)	Odor	1	Liquid (ft.)	(ml)	Depth to water (ft.)	pottom (ft.)	or ZOC
mu-c4	4	-		` .	•		26.60	
				·	<u> </u>	<del>1.0.</del> //	26.6U	
MW-06	4		30.21	0.05		-30214	30.29	
MW-08	4		31.92	0.42		37.34		
MW-09	4					3429	45.90	
MW-10	4					31.68	40.69	
mw-11	2					31.84	39.93	
MW-12	2					<i>3</i> 236	46.10	
mw-13	2					42.16	62.48	
mw-14	æ					43,79	65.15	
MW-15	2					44.19	64.75	
MW-16	2			_		33.48	45.50	
דיו-טומ	_2_					40.65	66.40	
<u>/mw-18</u>	2				,	38.37	46-22	,
MW-19	2		32.46	0.83		33.29		
MW-20	2					Ŷ1.57	67.59	
MW-21	2	<b></b>	_			42.68	63.15	
MW-22	2-					39.87	DAR LO LOPING PAR LO LOPING LO MOST	*

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

# WELL GAUGING DATA

Project #	Date <i>9//</i>	<u>/6 /0.₹</u> Clie	int <u>Blakely</u> E	nu
Site_ <u>8915 Socensen</u>	are, Santa	Fr Springs	angela Ch	em Co

Well D Well D Well D Well D Well D Well D  Wel										
Well ID    Size   Color   Colo	1	1	1	1	Thickness	Volume of	<u> </u>		ı — —	
Well ID   (in.)   Codor   Immiscible   Immiscible   Removed (ft.)   Depth to water (ft.)	1			Depth to			1		] .	
Well ID (in.) Odor Liquid (ft.) Liquid (ft.) (ml) (ft.) bottom (ft.) control of the potent well potent well potent ft.) control of the potent ft. IOB bottom (ft.) control of the potent ft. IOB bott	[	Size	Sheen /			1	L		Survey	
MW-23 4 39.55 80.15   MW-24 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Well ID	(in.)							Point: TOB	
mw-zy 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		1 ()		Tandard (III)	mquia (IL)	(m1)	(ft.)	bottom (ft.)	, or OC	
mw-zy 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Mul 32	: 4		į.			•			
MW-Z5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	200-23	<u>: 7</u>	<u>i</u>	, ,			3955	80.15	, !	
mw-x5 4 4 4 4/4.35 80.98 4 38.45 39.80 4	i	1		:				0 - 17 0		
mw-x5 4 4 4 4/4.35 80.98 4 38.45 39.80 4	MW-74	14		•						
mw-25 4 4 4 4 4 35 80.98 Mw-24, 2 38.45 39.80 M		<del>;                                    </del>	<del>!</del>	<del>:</del>			<u> </u>	<u>~76.85</u>	1 5	
MW-21. Z 38.45 39.80 ▼		11	į						1 :	
MW-21. Z 38.45 39.80 ▼	MW-5	<u>;                                    </u>	<u>i</u>	<u>i</u>			4/4.35	3000		
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Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

Project#:	0	30916-7	TC-1	Client: B/	akely ENV.	
Sampler:		HC	1.0 Tour	Start Date:	•	1/03
Well I.D.:	·	MW-23		Well Diamete	r: 2 3 套	6 8
Total Wel	l Depth:	80.	.15	Depth to Wate	er: <i>39.55</i>	<u> </u>
Before:	•	After:		Before:		After:
Depth to I	Free Produc	:t:	,	Thickness of I	Free Product (feet	):
Reference	d to:	R <b>√C</b> >	Grade	D.O. Meter (if	-	YSB HACH
	od: Bailer Disposable Bail Positive Air Dis Electric Submer	splacement rsible	Waterra Peristaltic Extraction Pump Onto 2 600		Disposable Extraction I Dedicated I Other	Port
	(Gals.) X			1° 2°	0.04 4" 0.15 6" 0.37 Other	0.65 1.47 FB <b>d</b> îus <sup>x</sup> * 0.163
Time	Temp.	pH ·	Conductivity (mS	Turbidity (NTU)	Gals. Removed	Observations
933	<i>22.97</i>	6.60	2255	21	27	3.92 120.9
942	22.92	6.63	7265	5	54	3.94 115.4
951	2294	6.64	2265	5	80	3.94 111.9
}					<u>-</u>	
Did well		Yes		Gallons actual	<del>-</del> -	80
Sampling	Time:	956	DTW=39.65	Sampling Date	e: 9/16	103
Sample I.	D.:	MW-23	<u> </u>	Laboratory:	<u> 575</u>	
Analyzed	for: tp	H-G BTEX		Other:		
Equipmen	nt Blank I.D	) <u>.</u> :	@ Time	Duplicate I.D.	: ANCI	HEM0349
Analyzed	for: TP	H-G BTEX	MTBE TPH-D	Other:	. <u>.</u>	
D.O. (if re	eq'd):		Pre-purge:	mg/L	Post-purge:	™g/ <sub>L</sub>
ORP (if re	eq'd):	· ·	Pre-purge:	mV	Post-purge:	

Project #: 030916-7C-/				Client: B/A	Kely ENV.		
Sampler:		HC		Start Date: 9/16/03			
Well I.D.:		MW-24	,	Well Diameter	: 2 3 <b>4</b> 5	6 8	
Total Wel	l Depth:	4	76.85	Depth to Wate	a: 42.6	9	
Before:		After:		Before:		After:	
Depth to I	ree Produc	t:		Thickness of F	ree Product (feet	):	
Reference	d to:	<b>€</b>	Grade	D.O. Meter (if	req'd):	CSS HACH	
	od: Bailer Disposable Bail Positive Air Dis Electric Submer	placement	Waterra Peristaltic Extraction Pump Other 2" Gr.	Sampling Me	thod: Bailer Disposable Extraction I Dedicated : Other:	Port l'ubing	
	,		1027 @ 30	Fn7 Well Disme	er Multiplier Well Dis	meter Multiplier	
	.(Gals.) X		66-6 Gals.	2"	0.04 4" 0.16 6" 0.37 Other	0.65 1.47 radius <sup>2</sup> * 0.163	
Time	Temp.	pΗ	Conductivity (mS or 🐼	Turbidity (NTU)	Gals. Removed	Observations	
1034	22.63	6.81	1798	24	23	5.47 90.3	
1041	22.60	6.75	1800	9	43	5.49 85.5	
1048	22.60	6.74	1799	5-	67	5.50 83.2	
					<del></del>	,	
Did well	dewater?	Yes	<b>X6</b>	Gallons actual	ly evacuated:	67	
Sampling	Time:	1052	DTW=42.70	Sampling Date	: 9/1	103	
Sample I	.D.:	<u>2-נטומ</u>	4	Laboratory:	272		
Analyzed	l for: T	H-G BTEX	MTBE TPH-D	Other:			
Equipme	nt Blank I.I	).: 	@ Time	Duplicate I.D.	<u>                                      </u>	NCHEMØ35Ø -	
Analyzed	l for: T	H-G BTEX	МТВЕ ТРН-D	Other:		<u> </u>	
D.O. (if 1	eq'd).	_	Pre-purge:	<sup>mg</sup> / <sub>L</sub>	Post-purge:	me/ <sub>L</sub>	
ORP (if r	eq'd):		Pre-purge:	mV	Post-purge:	m∨	
Blaine	e Tech Sei	vices, In	c. 1680 Rogers	Ave., San Jo	se, CA 95112 (	408) 573-0555	

<u> </u>	<u> </u>			<del></del>
Project#: <u>0309</u> ,	16-70-1	Client: B/a	tely ENV.	
Sampler:	1K	Start Date:	9/16/	7 <u>3</u>
Well I.D.:	MW-Z5	Well Diameter	: 2 3 650	6 8
Total Well Depth:	80.98	Depth to Wate	т: 44	.35
Before: Aft		Before:	•	After:
Depth to Free Product:		Thickness of F	ree Product (feet)	):
	<del>P∀C</del> Grade	D.O. Meter (if	req'd):	NED HACH
Purge Method;		Sampling Me	thod: Bailer	
Beiler	· Waterra	•	Disposa <del>bl</del> ≥	Bailer
	Peristaltic		Extraction F	
Disposable Bailer				
Positive Air Displace		- 4 -	. Dedicated T	ubing
Electric Submersible	: Quies 2º6	rounal fos	Other:	
start purge @	1133 @ 3.0	Well Diame	ter Multiplier Well Dia	meter Multiplier
- 3721 <del>- 2-19</del> - 2-			. 0,04 4"	0.65
_ <u>-23,8</u> (Gals.) X3	3 = <u>7/. 4</u> Gals.	2"	0.16 6"	1,47
1 Case Volume Specified	Volumes Calculated Volume	pe 3°	0.37 Other	radius <sup>2</sup> + 0,163
Temp.	C it	3 Turbidity		
	Conductivity (m)	1 -		01
Time (For	pH or pS	(NTU)	Gals. Removed	Observations
1141 22.70 6	1883	75.	24	D.0 027 4.52 BO.6
;	.72 1885	4	43	4.60 77.9
		٤/	-	4.63 76.3
1157 22.66 6.	.67 1883	<del>  7                                   </del>	72	7.63 ;72.0
			, ,	
			,	<u> </u>
Did well dewater? Ye	s <u>&amp;</u>	Gallons actual	lly evacuated:	72
Sampling Time:	1205 DW=44.	38 Sampling Dat	e:	9/16/03
Sample I.D.:	MW-25	Laboratory:	573	
Analyzed for: трн-о	BTEX MTBE TPH.D	Other:		
Equipment Blank I.D.:	@ Time	Duplicate I.D.	.: AI	NCHEM0351
Analyzed for: TPH-0	3 BTEX MTBE TPH-D	Other:	.,,	
D.O. (if req'd):	Pre-purg	e: mg/ <sub>L</sub>	Post-purge:	<sup>πη</sup> β/ <u>,</u>
ORP (if req'd):	Pre-purg	e: mV	Post-purge:	ym.

r — · · · · · · · · · · · · · · · · · ·			ELL MONTO.	MIG DAIA			
Project#:		030916-	TC-/	Client: Blakely Env.			
Sampler:		ife		Start Date: 9/16/03			
Well I.D.:		MW-14		Well Diamete		6 8	
Total Well	Depth:	€	5.15	Depth to Wate	er: <i>43.</i> /	79	
Before:		After:	· · · · · · · · · · · · · · · · · · ·	Before:	11.011	After:	
Depth to Fr	ее Ртодис	t:		Thickness of I	Free Product (feet	):	
Referenced	to:	<b>20</b> 5	Grade	D.O. Meter (it		àcad hach	
Purge Method:			''	Sampling Me	ethod: Bailer	···· <u>·</u>	
В	ailer		Waterra	- *	Disposable	Sailer	
•	isposable Bai	) <sub>****</sub>	Peristaltic				
	•				Extraction 3		
	osîtive Air Di	-	Extraction Pump		Dedicated 2	<b>Fubing</b>	
	lectric Subme /		ංක <i>211 G</i>		Other		
<u> </u>	pura	<u> </u>	1242 @ 1.0	OPP Well Diame		ancter Multiplier	
	_		'	1"	0.04· 4" 0.16 6"	0.65	
1 Case Volume	lals.) X Spec	ified Volumes	Gals. Calculated Volume	30	0.37 Other	1,47 radius <sup>2</sup> * 0,163	
	Temp.		Conductivity (mS	Turbidity			
Time	(°F or&s)	pΗ	or <sub>e</sub> ssy	(NTU)	Gals. Removed	Observations	
<del>  .   .  </del>	<u> </u>		رڪيم	(2110)	CarsICellioved		
1246	23.41	7.04	2034	9	4	10.0 ORP 341 102,3	
1250 0	73.36	6.91	2101	5	8	3.48 97.1	
1253 -	13.3 g	6.90	2100	4	11	3.42 95.4	
		-					
		,	,			,	
Did well de	water?	Yes	<b>6</b>	Gallons actual	ly evacuated:	//	
Sampling T	ime:	1300	DTW= 43.80	Sampling Date	: 9	116/03	
Sample I.D	.:	Mw-		Laboratory:	<u> </u>	, , , , ,	
Analyzed for	pr: TP	H-G BTEX	MTBE TPH-D	Other;	<u></u>		
Equipment	Blank I.D	). <u>:</u>	@ Time	Duplicate I.D.			
Analyzed fo	or: Tp	H-G BTEX	MTBE TPH-D	Other:	ANI	CHEM0352 <u></u>	
D.O. (if req	ı'd):		Pre-purge:	mg/ <sub>L</sub>	Post-purge:	mg/,	
ORP (if reg	'd):		Pre-purge:	mV	Post-purge:	mV	

WALL	. MONTTO	RING DATA	SHEAT

						<del></del>	
Project #:		109/E-1	C-1	Client: Blakely Eur.			
Sampler:		AC		Start Date: 9/16/03			
Well LD.:		MW-17	,	Well Diameter: ② 3 4 6 8			
Total Wel	Total Well Depth: 66.40				r: <i>40.65</i>		
Before:		After:		Before:		After:	
Depth to I	Free Produc	t:		Thickness of F	ree Product (feet)	):	
Reference	d to:	EST.	Grade	D.O. Meter (if	req'd):	YSD HACH	
	od: Bailer Disposable Bail Positive Air Dis Electric Submer	placement sible	Waterra Peristaltic Extraction Pump Oction 2" Gr. 1.0 6em		Disposable Disposable Dedicated Tother:	Port Tubing	
4// 1 Case Volum	(Gals.) X	= ified Volumes	Gals. Calculated Volume	2**	0.16 6" 0.37 Other	1.47 radius² * 0.163	
Time	Temp.	pН	Conductivity (mS or iss	Turbidity (NTU)	Gals. Removed	Observations	
1404	24.15	6.82	2481	109	ح کے	2.45 83.1	
1408	23.72	6.86	2536	59	9	2.97 77.9	
1412	23.70	6.85	2536	15	13	2.97 77.4	
Did well	dewater?	Yes	<b>₩</b>	Gallons actual	ly evacuated:	/3	
Sampling	g Time:	1420	DTN=45.20	Sampling Date	9/	16/03	
Sample I	.D.:	MW-17	7	Laboratory:	<u>573</u>		
Analyze	i for: m	H-G BTEX		Other:			
Equipme	nt Blank I.I	D.:	@ Time	Duplicate I.D.		ANCHEMØ353 _	
Analyze	d for: π	PH-G BTEX	MTBE TPH-D	Other:	<del></del>		
D.O. (if:	req <b>'d)</b> :		Pre-purge:	**************************************	Post-purge:	mg/ <sub>L</sub>	
ORP (if	req'd):		Pre-purge:	mV	Post-purge:	v <sub>m</sub> v	

,						
Project#:		3 <i>0916</i> -7	TC-/	Client: B/a	Vely ENV.	
Sampler:		HC		Start Date:	9/12/	0.3
Well I.D.:		MW-20		Well Diameter	r: 💋 3 4	6 8
Total Wel	l Depth:	6	7.59	Depth to Wate	er: <i>4/.5</i>	-7
Before:		After:		Before:		After:
Depth to I	Free Produc	:t:		Thickness of I	Free Product (feet	):
Reference	· · · · · · · · · · · · · · · · · · ·	(T)	Grade	D.O. Meter (if		→ HACH
s-lar-l	Bailer Disposable Bai Positive Air Dis Electric Subme	splacement rsible	Waterra Peristaltic Extraction Pump Other 2 Gros O Gpm 13 Gals.		Disposante Extraction I Dedicated I Other:	ort Doing
1 Case Volum	ae Spec	ified Volumes		3"	0.37 Other	radius <sup>2 -</sup> 0.163
Time	Temp.	рН	Conductivity (mS or@	Turbidity (NTU)	Gals. Removed	Observations
744	23.25	6.79	1988	25	5	D.0   ORP 2.81 162.1
748	23.26	6.80	1986	23	9	3.00 161.5
752	23.26	6.79	1986	70	13	3.01 159.5
Did well	dewater?	Yes	@M	Gallons actual	ly evacuated:	/3
Sampling	Time:	<i>9</i> 03	OTW= 41.89	Sampling Date	: <i>9</i>	11/03
Sample I.	D.:	niw-20	2	Laboratory:	575	···
Analyzed	før: 17	н-G втех	MTBE TPH-D	Other:		
Equipmen	nt Blank I.I	),;	@ Time	Duplicate I.D.	<del>    K</del>	
Analyzed	l for: m	H-G BTEX	мтве трн-р	Other:		- ANCHEMØ354
D.O. (if r	eq'd):		Pre-purge:	mg/ <sub>L</sub>	Post-purge:	mg/1.
ORP (if r	eq'd):		Рте-ригде:	m∇	Post-purge;	mV
Blaine	Tech Sei	vices, In	c. 1680 Rogers	Ave., San Jo	se, CA 95112 (	408) 573-0555

E	roject #:	030	916-TC.	-/	Client: B/a	Vely ENV.		
S	ampler:		He		Start Date: 9/17/03			
7	Well I:D.:		א -מונון	15 <sup></sup>	Well Diameter	: 🕭 3 4	6 8	
	Total Well Depth: 64.75				Depth to Wate:	r: 40	4.19	
]	Before:		After:		Before:		After:	
]	Depth to l	Free Produc	t:		Thickness of F	ree Product (feet)	:	
.[]	Reference	ed to:		Grade	D.O. Meter (if	req'd):	(S) HACH	
1	Purge Metho	od: Bailer Disposable Bail Positive Air Dis Electric Subme	splacement rsible	Waterra Peristaltic Extraction Pump Ques 243 @ 1.0 q	Sampling Med Well Diamet	Disposable I Extraction P Dedicated T Other:	on ubing	
	3.3 1 Case Volum	_(Gals.) X ne Spec	_3 =	9.9 Gals. Calculated Volume	2"	0.16 6 <sup>-</sup> 0.37 Other	1.47 radius <sup>2</sup> * 0.163	
}	Time	Temp.	pH ·	Conductivity (mS or (aS))	Turbidity (NTU)	Gals, Removed	Observations	
1	847	23.21	6.83	1947	27	. 4	1.98 1018	
Í	850	23.24	6.79	1946	10	7	2.08 97.0	
ļ	853	23.24	6.75	1948	6	10	1.97 91.1	
Jan. 6								
ì	Did well	dewater?	Yes	<u> </u>	Gallons actual	ly evacuated:	<u> </u>	
Ī	Samplin	g Time:	903	DTN=44.19	Sampling Date	:: 9	117/03	
•	Sample I	.D.:	ארטיין		Laboratory:	_ 575		
;	Analyze	d for: m	PH-G BTEX		Other:			
} ,	Equipme	ent Blank I.I	D.:	@ Time	Duplicate I.D.	: MW-2		
***	Analyze	d for: T	PH-G BTEX	MTBE TPH-D	Other:		ANCHEMØ355	
ì	D.O. (if	req'd):		Pre-purge:	mg/L	Post-purge:	mg <sub>/1.</sub>	
,	ORP (if	req'd):		Pre-purge:	mV	Post-purge:	mV	

~ · · · · · · · · · · · · · · · · · · ·	1 1 -	:
Client: Bla.	Kely Eur	,— <u></u>
Start Date:	9/17/0	73
Well Diameter:	<b>3</b> 3 4	6 8
Depth to Water	: 42.68	3 .
Before:		After:
Thickness of Fr	ee Product (feet):	
D.O. Meter (if i	req'd):	ССТО НАСН
oast Cos	Disposable Extraction Po Extraction Po Dedicated To Other:	ort ubing
2"	7 Multiplier Well Diam D.04 4" D.16 6" D.37 Other	neter <u>Multiplic</u> 0.6\$ 1.47 radius <sup>2 -</sup> 0.163
Turbidity (NTU)	Gals. Removed	Observations
55	4	1.08 67.6
5/	ク	1.88 74.6
26	10	1.89 77.5
Gallons actual	ly evacuated:	10
Sampling Date	9,	117/03
Laboratory:	<i>373</i>	
Other:	. AN	ICHEMØ356
		_
	Post-purge:	m8/,
	Post-purge:	
	Start Date:  Well Diameter: Depth to Water Before: Thickness of Fr D.O. Meter (if r Sampling Meth  Sampling Meth  Turbidity (NTU)  SS  Gallons actual Sampling Date Laboratory: Other: Duplicate I.D. Other:	Start Date: 9/17/2  Well Diameter: 2 3 4  Depth to Water: 42. 6 8  Before:

Project #:	17.3	30918-7	~_/	1	Kely ENV	<u></u>							
Sampler		A.	<u> </u>	Start Date:	9/17/03	<u> </u>							
Well I.D.	:	mw-t3		Well Diameter		6 8							
Total We	ll Depth:	_	62.48	Depth to Water: 42.14									
Before:		After:	<u> </u>	Before:		After:							
Depth to	Free Produc	:t:			ree Product (feet								
Reference		<b>₽</b> ₹ <b>7</b> 5	Grade	Thickness of Free Product (feet):  D.O. Meter (if req'd):  HACH									
Purge Method	Bailer Disposable Bail Positive Air Dis Electric Subme  L <u>purge</u> (Gals.) X	splacement rsible	Waterra Peristaltic Extraction Pump Octor 2"60  3	evnal fos  Weil Diames  1° 2°	Disposed Extraction Dedicated Cother:	Port Cubing							
Time	Temp.	pH ·	Conductivity (mS or )	,	Gals Removed								
1037	23.28	707	1914	90	4	DO JORP							
1040	23.25	6.97	1910	3/	7	4.28 99.6							
1043	23.25	6.93	1904	18	/6	4.27 97.6							
					, •								
Did well	dewater?	Yes	<b>B</b>	Gallons actual	ly evacuated:	10							
Sampling	g Time:	1048	DTW=42.20	Sampling Date		9/17/03							
Sample I	.D.:	mw-	/3	Laboratory:	575								
Analyzed	l for: т	H-G BTEX		Other:		<u></u>							
Equipme	nt Blank I.I	).;	@ Time	Duplicate I.D.:	· · · · · · · · · · · · · · · · · · ·								
Analyze	i for: m	H-G BTEX	мтве трн-d	Other:	, <u>.</u>	_							
D.O. (if 1	req'd):		Pre-purge:	me/L	Post-purge:	mg/L							
ORP (if	req'd):		Pre-purge:	mV	Post-purge:	mV							
Blain	e Tech Sei	vices, Inc	c. 1680 Rogers	Ave., San Jo	se, CA 95112 (	408) 573-0555							

Project#:	030	916-73	~ /	Client: B	ekely Ear.									
Sampler:		H		Start Date:	9/17/	103	<u> </u>							
Well I.D.:		mw-12		Well Diameter: Ø 3 4 6 8										
Total Wel			46.10	Depth to Wate	:r: <i>32</i> ,	36								
Before:		After:		Before: After:										
Depth to l	Free Produc	t:		Thickness of Free Product (feet):										
Reference		₽ <del>₩</del> \$	Grade	D.O. Meter (if req'd):										
Purge Metho	od:	-		Sampling Me	ethod: Bailer	•								
	Bailer		Waterra		Disp <del>osablo</del>	Bailer								
	Disposable Bail	et	Peristaltic		Extraction	Port								
	Positive Air Dis		Extraction Pump	•	Dedicated	Tubing								
	Electric Submer	_	ONE 2"62	enselfus	Other:									
Silver			B 1.0 ge		ter Multiplier Well Di	ameter Multiplie	<u> </u>							
<u> </u>	• •			1"	0.04 47	0.65								
2.2	_`	<u> </u>	Gals.	2"	0.16 6 <sup>-</sup> 0.37 <b>Other</b>	1.47 tadins <sup>1</sup>	+0.163							
1 Case Volu	me Spec	ified Volumes	Calculated Volume											
	Temp.		Conductivity (mS	Turbidity										
Time	(°F or °C)	pН	or (65)	(NTU)	Gals. Removed	Observa								
1125	23.72	6.36	1239	54	_3	D.0 6.08	0ep 38.3							
1127	23.79	6.43	1303	26_	5	6.06	-55.5							
1129	23.81	6.49	13/3	13	7	0.05	-63.4							
		·				<del> </del>								
Did mail	dewater?	Yes	<u> </u>	Gallone actua	lly evacuated:									
T-10 MS11	dewater:	1 55	GAO	Canons acida	dry ovacuated.									
Samplin	g Time:	1134	DTW=32.40	Sampling Dat	te:	9/17/0	3							
Sample:	I.D.:	m	w-12	Laboratory:		75								
Analyze	d for: T	PH-G BTEX	·	Other:										
Equipme	ent Blank I.I	).:	@ Time	Duplicate I.D	).:	ANCHEMO	250 —							
Analyze	d for: T	PH-G BTE	MTBE TPH-D	Other:										
D.O. (if	req'd):		Pre-purge	. mg/1	Post-purge	:	mg/ <sub>i,</sub>							
ORP (if	req'd):		Pre-purge	: mV	Post-purge	*=	m\							
Blair	ne Tech Se	rvices, In	c. 1680 Roger	s Ave., San J	ose, CA 95112	(408) 573	-0555							

Project#:		030916 -	TCV	Client: Blakely Ewv.										
Sampler:		<u>k</u>		Start Date:	9/17	103								
Well I.D.		MW-9		Well Diameter	r: 2 3 <b>6</b>	6 8								
Total We	ll Depth:	_ 4	5.90	Depth to Water: 34.29										
Before:		After:		Before: After:										
Depth to	Free Produc	t:		Thickness of Free Product (feet):										
Reference	d to:	<b>100</b>	Grade	D.O. Meter (if	req'd):	MACH CES								
Purge Metho	oā:			Sampling Mc	thod: Bailer									
١	Bailer		Waterra		Dispesable	Bailer								
1	Disposable Bail	ler	Peristaltic		Extraction 1	Port								
,	Positive Air Dis	placement	Extraction Pump		Dedicated ?	<b>Fubing</b>								
ļ ,	Electric Subme	rsīble	Come 2"610	evnel Fos	Other:									
SHAR	ef @ 12i	u 🙆	1.0 Jem	Well Diame	ter Multiplier Well Dis	meter Muhiplier								
7.5				1"	0.04 4" 0.16 6"	0.65								
1 Case Volor	_(Gals.) X	ified Volumes	Gals.	3"	0.16 6" 0.37 Other	1.47 radius² * 0.163								
AT CASE ADM		ined volumes	,											
	Temp.		Conductivity (mS	Turbidity										
Time	(°F or °C)	pН	or <i>ந்</i> வீ	(NTU)	Gals. Removed	Observations								
1219	23.29	6.59	2420	_5_	8	0.10 485								
1227	23.43	6.60	2536	8	16	0.08 46.6								
1234	23.51	6.61	2540	8	23	0.10 44.8								
	•	_												
Did well	dewater?	Yes	<b>®</b>	Gallons actual	ly evacuated:	23								
Sampling	g Time:		1240	Sampling Date	: 9/	117/03								
Sample I	.D.:	MW	- 9	Laboratory:	575									
Analyzed	l for: m	H-G BTEX	MTBE TPH-D	Other:										
Equipme	nt Blank I.I	).:	@ Time	Duplicate I.D.:	AN	CHEM0359								
Analyzed	for: m	H-G BTEX	MIBE IPH-D	Other:										
D.O. (if 1	req'd):		Pre-purge:	mg/ <sub>L</sub>	Post-purge:	mg/t								
ORP (if	req'd):		Pre-purge:	mV Post-purge: m										
Blain	e Tech Ser	vices, Ind	c. 1680 Rogers	Ave., San Jo	se, CA 95112 (	408) 573-0555								

WELL	MON	TOR	INC I	ATA	SHEE	1
	1711/1					

Project #:	030	916-TO	n_ /	Client: Blakely ENV.										
Sampler:		of C	· t	Start Date:	9/17/	0.3								
Well I.D.:		mw-16		Well Diameter	: <b>2</b> P 3 4	6 8								
Total Wel	l Depth:	<del></del> -		Depth to Water: 33.48										
Before:		After:		Before: After:										
Depth to	Free Produc	<u> </u>		Thickness of Free Product (feet):										
Reference	ed to:	€ <u>V</u> C>	Grade	D.O. Meter (if req'd): SD HACH										
Purge Metho	od: Bailer Disposable Baile Positive Air Dis Electric Submer	placement sible	Waterra Peristaltic Extraction Pump Others 2"Groom 344 P 1.0 C		Disposable Extraction F Dedicated T Other:  r Multiplier Well Dis 0.04 4: 0.16 6-	Port Pubing								
1 Case Volum		ified Volumes	<del></del>		0.37 Other	784)65 0.163								
Time	Temp.	pĦ	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations								
1346	23.53	7.06	2354	3//	2	D.0 DEP 0.04 21.8								
1348	23.62	6.71	2218	398	4	0.10 75.6								
1350	23.66	6.70	2219	600	6	0.10 37.2								
}														
i														
Did well	dewater?	Yes	<u>AD</u>	Gallons actual	ly evacuated:	6								
Samplin	g Time:		<u>'555</u>	Sampling Date	:: 9/17	103								
Sample I	.D.:	MW-16		Laboratory:	573	·								
Analyze	d før: n	PH-G BTEX		Other:										
Equipme	nt Blank I.I	).;	@ Time	Duplicate I.D.: ANCHEMØ36Ø										
Analyze	d for: π	PH-G BTEX	MTBE TPH-D	Other:										
D.O. (if	req'd):		Pre-purge:	<sup>mg</sup> / <sub>1,</sub>	Post-purge:	mg/ <sub>1</sub>								
ORP (if	reg'd):		Pre-purge:	:: mV Post-purge:										

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

Project #:	03	30916-70	2/	Client:	Blakely E	wv.							
Sampler:		He		Start Date:	9/18	103							
Well I.D.:		MW-18		Well Diameter: Ø 3 4 6 8									
Total Wel	l Depth:			Depth to Water: 38.37									
Before:		After:		Before: After:									
Depth to I	Free Product	<del></del>		Thickness of Free Product (feet):									
Reference		PKO	Grade	D.O. Meter (if req'd):									
1-3	Bailer Disposable Baile Positive Air Dis Electric Submer  # pv-ge (Gals.) X	placement sible <i>O 254</i>	Waterra Peristaltic Extraction Pump Offer 2"Grace O.5 gp.  3.8 Gals. Calculated Volume	1" 2"	Disposable Extraction I Dedicated 1 Other:	Port							
' 1 Case Volum	Temp.	pH ·	Conductivity (mS or (S)	Turbidity (NTU)	Obsérvations								
75%	23.14	6-16	3026	175	Gals. Removed	D.0 ORP 0.17 -61.9							
800	23.19	6.24	3026	144	3	0.15 -62.9							
802	23.24	6.23	3028	190	4	0.13-67.4							
Did well	Steon of dewater?	7 <u>00/0</u> Yes	<u>e</u>	Gallons actual	ly evacuated:	4							
Sampling		816		Sampling Date	<u> </u>	18/03							
Sample 1	<del>-</del>	mw	 18	Laboratory:									
Analyze	d for: n	PH-G BTEX		Other:		, , , , , , , , , , , , , , , , , , ,							
) <del>  </del>	nt Blank I.I	D.:	@ Time	Duplicate I.D.		ANCHEMØ361							
Analyze	d for: T	PH-G BTEX	MTBE TPH-D	Other:	·								
D.O. (if	req'd):		Pre-purge:	mB/ <sub>L</sub>	Post-purge:	mg/ <sub>L</sub>							
ORP (if req'd): Pre-purge: mV Post-purge: m'													

$\mathbf{w}_{\mathbf{ELL}}$	MONIT	ORING	DATA	SHOWER
* * * ********************************	11111111111111111111111111111111111111		$\nu_{\Delta}$	

Project#:	a	30916-7	CA	Client: B/A	ikalv Env								
Sampler:		Ke		Start Date:	9/18/	) 03							
Well I.D.:		mw-11	/	Well Diameter: 20 3 4 6 8									
Total Wel	l Depth:		39.93	Depth to Water: 31.84									
Before:		After:		Before: After:									
Depth to I	ree Produc	t:		Thickness of Free Product (feet):									
Reference	d to:	<u>~₹₹\$</u>	Grade	D.O. Meter (if	req'd):	XSD HACH							
	d: Bailer Disposable Bail Positive Air Dis Electric Submen Jark	placement sible	Waterra Peristaltic Extraction Pump Offset <u>21 Grou</u> 0.5 Gen	ninolfos 1 Well Diame	Bailer Port Publing moster Multiplie								
1.3 1 Case Volum	(Gals.) X ue Spec	= ified Volumes	Gals, Calculated Volume	2"	0.04 4: 0.16 6" 0.37 Other	0.65 1.47 radius <sup>2</sup> * 0.163							
Time	Temp.	pH ·	Conductivity (mS or 🔊	Turbidity (NTU)	Gals. Removed	Observations							
857	23,71	6.50	3539	14		0.09 129.5							
859	23.98	6.52	3561	9	3	0.07 133.7							
901	24.10	652	3560	7	4	0.06 136.6							
,													
* *	Steon o	0000				,							
Did well	lewater?	Yes	<b>₫</b> Ø	Gallons actual	ly evacuated:	4							
Sampling	Time:		905	Sampling Date	3:	9/18/03							
Sample I.	D.:	- אוניו	-//	Laboratory:	 7°2	75							
Analyzed	for: 17	H-G BTEX	MTBE TPH-D	Other:									
Equipmen	nt Blank I.D	).:	@ Time	Duplicate I.D.		ANCHEMØ362							
Analyzed	for: TF	H-G BTEX	MTBE TPH-D	Other:									
D.O. (if re	eq'd):		Pre-purge:	<sup>mg</sup> /L	Post-purge:	™ <sup>B</sup> /L							
ORP (if re	∋g'd):		Pre-purge:	mV Post-purge:									

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

				<del></del>	<del></del>								
Project#:	0	30916-	TC-1	Client: Bla	Kely Env.								
Sampler:		HE		Start Date:	9/18	103							
Well I.D.:		カルシー	'D	Well Diameter: - 3 4 6 8									
Total Wel	l Depth:		40.69	Depth to Water: 31.68									
Before:		After:	,	Before: After: 39.70									
Depth to I	Free Produc	t:		Thickness of I	ree Product (feet)								
Reference	d to:	<b>ED</b>	Grade	D.O. Meter (if	req'd):	YSD HACH							
	Bailer Disposable Bail Positive Air Dis Electric Submer  MET Pure  (Gals.) X	placement sible		DV ned For Well Diames	Disposable Extraction I Dedicated I Other:	Port Fubing							
Time	Temp.	pН	Conductivity (mS orqiS)>	Turbidity (NTU)	Gals. Removed	Observations							
944	23.34	6.62	2970	6	6	0.03 -129.0							
950	23.50	6-58	3386	6	12	0.02 -126.7							
1002	24.38	6.55	3978	9	18	0.02 -1265							
	Steer	g Od	be										
Did well	dewater?	Yes	<b>®</b>	Gallons actual	ly evacuated:	18							
Sampling	g Time:	1010	<u> </u>	Sampling Date	s: 9	18/03							
Sample I	.D.:	min-1	6	Laboratory:	<u>57</u> 5								
Analyzed	l for: 11	H-G BTEX		Other:									
Equipme	nt Blank I.I	).:	@ Time	Duplicate I.D.	<u>:</u>	NCHEMØ363							
Analyzeo	i for: T	H-G BTEX	MTBE TPH-D	Other:									
D.O. (if 1	req'd):		Pre-purge:	mg/L	Post-purge:	™8/ <sub>L</sub>							
ORP (if	req'd):		Pre-purge:	mV	Post-purge:	m∨							

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

# **Appendix B**

#### SOUTHLAND TECHNICAL SERVICES, INC.

CHAIN OF CUSTODY RECORD

Lab Job Number B309092

Client: D	Ewienn	10	-		دمدا				· · · · · · · ·		Ana	lyses	Req	ueste	:d				T.A.T. Requested  Rush 8 12 24 hours
Address 4359 Dh	elcu Rd.		cu,	C (	<u>a (1000)</u>	<del></del> -	(ig	<u> </u>			S	Ê	<u> </u>	Γ_	_ح	19	병		O 2-3 days O Norma
Report Attention Project Name/No.	Phope 140)464-8573	Гих 740)%68	-8572	•	'un Blo	ives Tech	(BTEX,MTBE)	oline)	- -	(%)	8260B (Oxygenates, BTEX)	8260B (MTBE Confirm.)	50.	27 28 28 28 28 28	A Collanty	terras Iron, Total Iron	Introducto, Es Controvate	C. K.S.R.	Sample Condition  Chilled Minuact  Sample seals
	Aucy	اک جا Sample		1	l	No.,type*		(Gass	Giè	Š	űńxO)	Æ	<u>الح</u>	4		17.	ł\$	Vernezo. 1	Remarks
Client Sample ID	Lab Sample ID	Date	Time	Matrix Type	Sample Preserve	& size of container		8015M (Gasoline)	8015M (Diesel)	\$260B (VOCs)	8260B	\$260B	ည်	30	7. trat	t-eys		2	
Jun-23_	BL309092-39	7.11.03	9356	Water	its you	HET 200	(G) S(P)	又		7			X	,	X	Х	X	X	
NW-24	-4	11	10:53	11	เา	V(C) <sup>11</sup>	<b>(1)</b>	X		X			Χ	X	X	X	X	X	
HW-25	-5	1 F	12:05	11	۱۱	ιl		X		X			X	X	X	X	X	ĬΧ	
HW-14	-1	11	13:∞	ı.l	VI.	u		X		X			X	X	X	X	X	ΪŻ	
MW-17	-2	=	લ્દ:મૃ	ĮΙ	1	{L		X		X	$ldsymbol{f eta}$		X	X	X	X	Х	X	
Trip	-6				<u></u>					X	_		<u> </u>		ļ	<b> </b>	ļ	ļ	
MW-1	-7_						<u> </u>			У				_	<u> </u>	ļ			<u> </u>
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		•				·										<del>                                     </del>		<del>                                     </del>	
	- 			Date	Time	Received by	<u> </u>	<u> </u>			Com	pany'			_		iner t		M=Metal Tube
Relinguished by Relinguished by	- BE			Date 7./6.03 Date	251 pm.	Received by	AU	4n/	Su		Cons	tan).	<u>د</u>	V	>>		ir Bag lass bo		P=Plastic bottle V=VOA vial

Southland Tech. Services, Inc.

7801 Telegraph Road, Suite L & K Montebello, CA 90640

Tel: Fax:

(323) 885-0728

(323) 888-1509

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

#### SOUTHLAND TECHNICAL SERVICES, INC.

	Pageof
Lab Job Number	BL 308092

CHAIN OF CUSTODY RECORD

	CHAIN OF COSTOD'S RECORD							Analyses Requested								T.A.T. Requested			
Client 2 Lalar (	Fall.	1	TNA	-/00	)						Ana	lyses	Requ	ested					□ Rush 8 12 24 hours
Clienty (1) Address Report Attention  B. BROWN	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		J	<del>(</del>			(EE				EX)	т.)							D 2-3 days ☐ Normal
Report Atlention	Phone	Fax		Sampled by	11	2	Σ.				. BT	onfīr			Ì				Sample Condition
Report Attention  Report Attention  Project NumerNo.	3:0833 (910 Project Site	1	Sampled by Book					line	- Fa	ଜ	nate:	П	9						□ Chilled □ Intaci □ Sample scals
Project Name/No.	Project Site	·							Ç Sa	Įξ	MAX.	Ę	36						
Client	Lab	Sample	Collect	Matrix	Sample	No.,type* & size of	602/8021 (BTEX,MTBE)	8015M (Gasoline)	8015M (Diesel)	\$260B (VOCs)	8260B (Oxygenates, BTEX)	8260B (MTBE Confirm.)	S)						Remarks
Sample ID	Sample ID	Date	Time	Туре	Preserve	container	/7.09	8013	801	826	826(	826	3				<u> </u>		
NW25-NP		9/17				-		_			<u> </u>		×	_					
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			<u> </u>	<u></u>				<u> </u>	<u> </u>	<u> </u>	_		<del></del>				<u> </u>		
										<u> </u>		<u></u>			- <del></del>		lider *	inec,	M=Mctal Tube
Relinquished by Bla	Con	13°F-1	7	Pare/17	Time /0.69	Received by	-7	رسر		6	Com	pany CS	- 4 	רו) ייטין	-6.) "V.Y	A≃Ai C÷∩i	incr ty ir Bag lass bo	rpes.	PaPlastic bottle VaVOA visi
Relinquished by	71K( <u> </u>	прапу прапу		Date	Time	Received by					Cont	pany							gements are

Southland Tech. Services, Inc. 7801 Telegraph Road, Suite L & K

Montebello, CA 90640

Tel: (323) 888-0728

Fax:

(323) 888-1509

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.



Environmental Laboratories

10-20-2003

Mr. Hiram Garcia Blakely Environmental Investigations, Inc. 4359 Phelan Road Phelan, CA 92371

Project:

Angeles Chemical Co.

Project Site:

8915 Sorensen Ave., Santa Fe Springs, CA

Sample Date:

09-16-2003

Lab Job No.: BL309092

Dear Mr. Garcia:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 09-16-2003 and analyzed for the following parameters:

EPA 8015M (Gasoline)

EPA 8260B (VOCs by GC/MS)

EPA 160.1 (Total Dissolved Solids)

EPA 352.1 (Nitrate)

EPA 325.3 (Chloride)

EPA 375.4 (Sulfate)

EPA 376.1 (Sulfide)

EPA 7380 (Total Iron)

Ferrous Iron

EPA 7460 (Manganese)

EPA 310.1 (Alkalinity)

Standard Method 4500 (Carbonate & Bicarbonate)

EPA 415.1 (Total Organic Carbon, Dissolved Organic Carbon)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Chloride, sulfide, Alkalinity, Carbonate & Bicarbonate analyses were subcontracted to Americhem Testing Laboratory. TOC & DOC analyses were subcontracted to Associated Laboratories. Their original reports are attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang Ph. D.

Laboratory Director

This cover letter is an integral part of this analytical report.

ANCHEMO367



#### Environmental Laboratories

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309092 Project:Angeles Chemical Co. Matrix: Water

Date Reported: 10-20-2003 Date Sampled: 09-16-2003

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE ANALYZED   09-17   09-17-03												
DUUTIO			09-17	1 09-17-03	09-17-03	1 09-17-03	19-17-03	09-17-03	09-17-03			
- dura mare				B1 300003	B ( 200000	1 1	1 DE 200002	1	BL309092			
LAB S	AMPL	È LD.		-1	-2	-3	-4	-7	; !!			
CLIENT S.	A MPI	E IT		MW-14	MW-17	MW-23	MW-24		-6			
	MDL		MB	1V1 VV - 1 - 7	TAT AA - 1 /	M1W-23	IVI W - 24	MW-1	Trip Blank			
Dichlorodifluoromethane				3.72	<u> </u>	<u> </u>	<u> </u>					
Chloromethane	2	5	ND	ND	ND	ND	ND	ND	ND			
	2	5 .	ND	ИD	ND	ND	ND -	ND	ND			
Vinyl Chloride	2	2	ND	5.2	ND	ND	ЙD	ND	ND			
Bromomethane	2	5	ЙИ	ND	ND	ND	ND	ND	ND			
Chloroethane	2	5	ND	ND	ND	ND	ND	ИD	ND			
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND	ND			
1,1-Dichloroethene	2	5	ND	274	14.2	ND	ND	ND	ND			
Iodomethane	2	5	ИĎ	ND	ND	ND	ИD	ND	ND			
Methylene Chloride	2	5	ИD	ND	ND	ND	ND	ND	ND			
trans-1,2-Dichloroethene	2 ***	5	ИĎ	ŊD	ND "	ND	ND	ND	ND			
l, I-Dichloroethane	2	- 5	ИD	101	ND	3.1 j	ND	ND	DN			
2,2-Dichloropropane	2	5	ND	ND	ND	NĎ	ND	ND	ND			
cis-1,2-Dichloroethene	2	5	ND	49.0	ND	8.7	ND "	ND	ND			
Bromochloromethane	2	5	ND	ND	ND	ND	ND	מא	ND			
Chloroform	2	ĵ.	ND	ND	ND	ИD	ИD	ND	ND			
1,2-Dichloroethane	2	5	ND	מא	ND	ND	ND	ND	ND			
1,1,1-Trichloroethane	2	3	ND	8.9	8.0	ND	ND	ND	ND			
Carbon tetrachloride	2.	5	ND	ND	DD	ND	ND	ND	ND			
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND "	ND			
Benzene	1	1	ND	5.5	ND	ND	ND	ND	ND			
Trichloroethene	2	2	ND	12.1	3.9	ND	11.5	11.2	ND			
1,2-Dichloropropane	2	. 5	ND	ND	ND	ND	ND	ND	ND			
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ИD	ND			
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND	ND			
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	DIA			
cis-1,3-Dichloropropene	2	3	ND	ND	ND	ND	ND	ND	ND			
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND	ND			
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND			
Dibromochloromethane	2	5	ΝĎ	ND	ND	ND	סא	ND	ND			
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND	ND	ND	ND			
Bromoform	2	5	ND	ND	ND	ND	ND	ND	ND			
Isopropylbenzene	2	3	ND	ND	ND	ND	ND	ND	ND			
Bromobenzene	2	- 3	ND	ND	ND	ND	ND	ND	ND			

ANCHEM0368

7801 Telegraph Road Suite L, Montebello, CA 90640



**Environmental Laboratories** 

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309092

Date Reported: 10-20-2003

Project:Angeles Chemical Co.

Matrix: Water

Date Sampled: 09-16-2003

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-14	MW-17	MW-23	(ppb)	MW-1	Trip Blank
Toluene	1	100	ND	ND	ND	ND	ND ND	ND	ND ND
Tetrachloroethene	2	$-\frac{1}{2}$	ND	28.3	15.1	4.1	10.7	11.0	ND
1,2-Dibromoethane(EDB)	$-\frac{2}{2}$		ND	ND	ND	ND	ND ND	ND	- מא
Chlorobenzene	2	5	ND	ND	QN	ND	ND	ND	ND
1,1,1,2-Tetrachloroethan	2	5	ND	ND	ND	ND	ND	ND	סא
Ethylbenzene	1	<del>-</del>	ND	ND	ND	NO	ND	סא	ND
Total Xylenes	1	<del></del>	ND ND	ND	ND	ND	ND	ND	ND ND
Styrene		<del>-</del> 3	ND	ND	ND	ND	D D	ND DN	ND ND
I.1.2.2-Tetrachloroethan	2	5	ND	ND	DN D	ND	ND ND	ND ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND	סא
n-Propylbenzene	2	5	ND	מא	ND	ND	ND	ND ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	$\frac{2}{2}$	5	לא	ND	ND ND	ND	ND	ND	שא
1,3,5-Trimethylbenzene	2	5	ND	ND	ND ND	ND	ND ND	ND -	ND
tert-Buty!benzene	2	5	ND	ND	ND	ND ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND ND	ND	ND	- מא	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND.
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyitoluene	2	5	ND	ND	ND	ND	ND	ND	ND
1.4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND -	ND
1.2-Dichlorobenzene	$\frac{2}{2}$	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	- 2	5	ND	ND	ND ND	ND	ND	ND	ND
1.2.4-Trichlorobenzene	2	5	ND	ND	ND -	ND	ND	ND	ND
1,2-Dibromo-3-		1 -	ND	IND	I ND	ND	ND		ND
Chloropropane	2	5	ND	ND	ND	ND	ZIX	ND	ND
Hexachloroburadiene	2	1 5	ND	ND	ND	ND	ND	ND	ΝŌ
Naphthalene	-2	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
		25	<u> </u>	ND	ND	ND	ND	ND	ND
Acetone	5	25	ND ND	ND	ND	QN CON	ND	ND	ND
Z-Butanone (MEK Carbon disulfide	5	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	5	25	ND	ND	ND	ND	ND ND	ND	ND
2-Hexanone	3	25	ND ND	ND	ND ND	ND ND	ND	ND	מא
Viny! Acetate	5	25	ND	ND	ND -	ND ND	ND	ND ND	ND
1,4-Dioxane	50	100	ND	- מא	ND	ND -	ND	ND	ND
MTBE	1 2	2	ND	ND	ND	ND ND	ND	אם מא	ND ND
ETBE	1 2	2	ND	ND	ND ND	ND	ND	ND	H ND
DIPE	1 2	2	ND -	ND	ND	ND	ND	ND	ND ND
TAME	2	2	ND	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	10	10	ND	ND	ND	ND	מא	ND	ND
1-Butyl Alcohol	10	1 10	עא	1 NO	ND	ИП	T IND	I ND	עא

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF × MDL), j=trace concentration.

ANCHEM0369

7801 Telegraph Road Suite L, Montebello, CA 90640 Phone: (323) \$88-0728 Fax: (323) \$88-1509



## Environmental Laboratories

Client: Blakely Environmental Investigations, Inc.

Project: Angeles Chemical Co.

Lab Job No.: BL309092

Matrix: Water

Date Reported: 10-20-2003

Date Sampled: 09-16-2003

#### EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

			09-17		of 2) Reportin	g Omt. pp	D		,
DATE			09-17	09-17-03	09-17-03		"	L	
DILUTIO				I	1			L	
LAB S				L	BL309092-8				
CLIENT S			··· <u></u> -	MW-25/9-16	MW-25/9-17				
COMPOUND	MDL	PQL	MB	<u></u>				· ·	
Dichlorodifluoromethane	2	5.	ND	ИD	מא			<u> </u>	<u> </u>
Chloromethane	2	5	סא	מא	ND				
Vinyl Chloride	2	2	ND	ND	ND				
Bromomethane	2	5	ND	ND	ND			<del></del>	
Chloroethane	2	5	ND	ND	ND				<del></del>
Trichlorofluoromethane	2	5	ND	ND	ND				
l, l-Dichloroethene	2	5	ND	ND	ND			<del></del>	
Iodomethane	2	5	ND	ND	ND		<del>.</del>	<del> </del>	<u> </u>
Methylene Chloride	2	- 3	מא	ND	ND			-	
trans-1,2-Dichloroethene	. 5	5	_ ND	ND	ND			<u> </u>	
1,1-Dichloroethane	2	5	מא	5.0	4.1 j				
2,2-Dichloropropane	2	-5	מא	ND	ND				
cis-1,2-Dichloroethene	2	5	ND	2.4 j	2.8 j				
Bromochloromethane	2	5	ND	ND	ND				
Chloroform	2	5	ND	ND	ND			<del>-</del>	
1,2-Dichloroethane	2	5	ND	ND	ND			<del></del>	
1,1,1-Trichloroethane	2	- 5	ND	ND	DIN				
Carbon tetrachloride	2	3	מא	ND	ND			<del> </del>	<u> </u>
1,1-Dichloropropene	2	3	ND	ND	OM			-	·
Вспиеле	1	1	ND	ND	NO	7	-	<del>                                     </del>	-
Trichloroethene	2	2	ND	25.0	21.5			-	<del></del>
1,2-Dichloropropane	2	5	ND	ND	ND				-
Bromodichloromethane	2	5	ND	ND	ND			<del>†</del>	<del> </del>
Dibromomethane	2	5	ND	ND	ND				
trans-1,3-Dichloropropene	2	- 5	ND	ND	ND			1	<del>                                     </del>
cis-1,3-Dichloropropene	2	- 3	ND	ND	ND			<del> </del>	<u> </u>
1,1,2-Trichloroethane	2	5	ND	ND	ND	- "		<del>                                     </del>	+
1,3-Dichloropropane	2	5	ND	ND	ND			1	1
Dibromochloromethane	2	5	ND	ЙD	ND			<b> </b>	
2-Chloroethylvinyl ether	2	5	ND	ND	ND		<u> </u>	<del>                                     </del>	†
Bromoform	2	5	ND	ND	ND				
Isopropylbenzene	2	5	ND	ND	ND				<del> </del>
Bromobenzene	5	-5	ND	ND	מא				

ANCHEM0370

7801 Telegraph Road Suite L, Montebello, CA 90640



**Environmental Laboratories** 

Client: Blakely Environmental Investigations, Inc. Project:Angeles Chemical Co.

Matrix: Water

Lab Job No.: BL309092

Date Reported: 10-20-2003 Date Sampled: 09-16-2003

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Pennstis

EF 2		s (VOC	S by GC	/MS, Page 2 c	of 2) Reporting	Unit:	(ppb)		
COMPOUND	MDL	PQL	MB	MW-25/9-16	MW-25/9-17			<u> </u>	1
Toluene	1 1	I	ND	ND	ND				<del>                                     </del>
Tetrachloroethene	2	2	ND	51.0	33.4		<del>- </del>	<del></del>	<del>                                     </del>
1,2-Dibromoethane(EDB)	2	5	ЙÖ	ND	ND		<del>                                     </del>	<del></del>	<del>                                     </del>
Chlorobenzene	2	5	ND	ND	ND		+	<del></del>	<del></del> -
I,1,1,2-Tetrachloroethan	2	- 3	מא	ND	ND		+		<del>-                                    </del>
Ethylbenzene	1	1	NĎ	ND	ND		<del>                                     </del>		
Total Xylenes	1	1	ИD	ND	ND				<del>-</del>
Styrene	2	5	ND	ND	מא		<del></del>	———	<del></del>
1,1,2,2-Tetrachloroethan	2	3	ND	ND	ND		<del></del>		
1,2,3-Trichloropropane	2	5	ND	ND -	מא		<del>-}</del>		
n-Propyibenzene	2	5	ND	ND —	ND		┿		
2-Chlorotoluene	2	5	ND	ND —	ИD		+-		<del>-</del>
4-Chlorotoluene	2	- 5	מא	ND	מא	<del> </del>	┿		<del> </del>
1,3,5-Trimethylbenzene	2	5	ND	ND	ND -				
tert-Butylbenzene	2	3	ND	ND -	ND -		+	<u> </u>	
1,2,4-Trimethylbenzene	2	5	ND	ND	ND -			<del></del>	
Sec-Butylbenzene	2	5	ND	מא	ND	_	┿	<del></del>	<del> </del>
1,3-Dichlorobenzene	2	5	ND	ND	ND		<del></del> -	<del></del>	
p-Isopropyltoluene	2	3	ИĎ	ND	ND		+		<u> </u>
1,4-Dichlorobenzene	2	Š	ND	ND	ND		+		<del> </del>
1,2-Dichlorobenzene	2	5	ND	ND	ND		<del></del>		
n-Butylbenzene	2	5	ND	ND	ND		<del></del> -		
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	<del>-</del>	<del>                                     </del>	<del>-                                    </del>	<del>- </del>
1,2-Dibromo-3-			\					<del> </del>	<del></del> -
Chloropropane	2	5	ND	ИĎ	ND		· ·		· ·
Hexachlorobutadiene	2	5	מת	ND	ND		+-	<del></del> -	<del></del>
Naphthalene	2	5	ND	מא	ND		_		<del></del>
1,2,3-Trichlorobenzene	2	5	ИĎ	ND	ND				<del> </del> -
Acetone	5	25	ND	ND	ND		+-	<del></del>	<del>†                                      </del>
2-Butanone (MEK	- 5	25	NĐ	ND '	ND.		<del> </del>		-
Carbon disulfide	5	25	ND	ND	מא				
4-Methyl-2-pentanone	5	25	ND	ND	DIN			<del></del>	<b>-</b>
2-Hexanone	5	25	מא	ND	ND		<del></del>		
Vinyl Acetate	5	25	ИD	ND	ND		+-	··	<del></del>
1,4-Dioxane	50	100	ND	ND	ND		+		
MTBE	2	2	ND	ND	ND		<del> </del>		<del> </del>
ETBE	. 2	2	ND	ND	ND		┿-	_	
DIPE	2	2	ND	ND	ND		<del> </del>	-	
TAME	2	2	ND	ND	ND ND		+-		
T-Butyl Alcohol	10	10	ND	ND	ND		-		

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF × MDL).

ANCHEM0371

7801 Telegraph Road Suite L, Montebello, CA 90640



#### **Environmental Laboratories**

10-20-2003

Client:

Blakely Environmental Investigations, Inc.

Lab Job No.:

BL309092

Project: Project Site: Angeles Chemical Co.

09-16-2003

Matrix:

8915 Sorensen Ave, Santa Fe Springs Water

Date Sampled: Date Received:

09-16-2003

Batch No.:

water AI17-GW1

Date Analyzed:

09-10-2003

EPA 8015M (Gasoline) Reporting Units: µg/L (ppb)

	Lab ID	Gasoline (C4-C12)	Method Detection Limit	PQL
Method Blank		ND	50	50
MW-14	BL309092-1	89	50	50
MW-17	BL309092-2	ND .	50	50
MW-23	BL309092-3	ND	50	50
MW-24	BL309092-4	ND	50	50
MW-25	BL309092-5	ND	50	50
Trip Blank	BL309092-6	ND	50	50
MW-1	BL309092-7	ND	50	50

ND: Not Detected (at the specified limit)

ANCHEM0372

7801 Telegraph Road Suite L, Montebello, CA 90640



#### Environmental Laboratories

10-20-2003

# EPA 8015M (TPH) Batch QA/QC Report

Client:

Blakely Environmental Investigations, Inc.

Lab Job No .:

BL309092

Project:

Angeles Chemical Co.

Lab Sample ID:

BL309092-5

Matrix: Batch No.:

AI17-GW1

Water

Date Analyzed:

09-17-2003

L MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1000	925	1,060	92.5	106.0	13.6	30	70-130

#### IL LCS Result Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept, Limit
TPH-g	1,030	1,000	103.0	80-120

ND:

Not Detected

ANCHEMØ373



Environmental Laboratories

10-20-2003

#### **EPA 8260B** Batch QA/QC Report

Client:

Blakely Environmental Investigations, Inc.

Lab Job No .:

BL309092

Project:

Angeles Chemical Co.

UR309073-2

Matrix: Batch No:

0917-VOAW

Water

Lab Sample ID: Date Analyzed:

09-17-2003

#### L MS/MSD Report Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept, Limit
1,1- Dichloroethene	ND	20	18.9	17.7	94,5	88.5	6.6	30	70-130
Benzene	מא	20	24.1	25.0	120.5	125.0	3.7	30	70-130
Trichloro- ethene	מא	20	22.9	21.7	114.5	108.5	5.4	30	70-130
Toluene	ИD	20	22.6	23.0	113.0	115.0	1.8	30	70-130
Chlorobenzene	מא.	20	21.8	19.9	109.0	99.5	9,1	30	70-130

#### IL LCS Result Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.1	20	80.5	80-120
Benzene	23.2	20	116.0	80-120
Trichloro-ethene	19.8	20	99.0	80-120
Toluen <b>e</b>	21.2	20	106.0	80-120
Chlorobenzene	20.2	20	101.0	80-120

ND: Not Detected.

ANCHEM0374

7801 Telegraph Road Suite L, Montebello, CA 90640

## SOUTIILAND TECHNICAL SERVICES, INC.

Page of \_\_\_

CHAIN OF CUSTODY RECORD

Lab Job Number BL309105

Address V379 Phelon Polen Ca. 92371  Report Attention Phone The Plant To Project Name(No. Project Name(No. Project Size Chunical Co.  Client Sample Collect Matrix Sample & size of Preserve container of the Sample ID Date Time Type Preserve container of the Sample ID Date Time Type Preserve Container of the Sample ID Date Time Type Preserve Container of the Sample ID Sample ID Type Preserve Container of the Sample ID Date Time Type Preserve Container of the Sample ID Date Time Type Preserve Container of the Sample ID Date Time Type Preserve Container of the Sample ID Sample ID Date Time Type Preserve Container of the Sample ID Date II II II II II II II II II II II II II	<b>I</b> Intoct
Project Sire	Condition  Mintoct seals
Project Sire	≥ Intact scals
Project Sire	≥ Intact scals
Client   Sample ID   Date   Time   Type   Preserve   Container	scals
Client   Sample ID   Date   Time   Type   Preserve   Container	narks
Client   Sample ID   Date   Time   Type   Preserve   Container	narks 
HW-20 BL309108-77-17-17-03-81-03 Water 1861 Swalls X X X X X X X X X X X X X X X X X X	
HW-20 BL309108-77-17-17-03-81-03 Water 1861 Swalls X X X X X X X X X X X X X X X X X X	
MW-15 11 9:03 11 11 2(0) X X X X X X X X X X X X X X X X X X X	
Mω-15 - 11 9:03 11 11 2(v) X X X X X X X X X X X X X X X X X X X	
My-21 -8 11 9:55 11 11 X X X X X X X X X X X X X X X X	
MW-13 -4 11 10:48 11 11 11 X Y X X X X X X X	-
$ M\omega^{-13} $ $ M\omega$	
1111 AG 7 -2 1 12:40 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<del> </del>
$ u_{1}\rangle -  b   -b    /3:ss                                      $	
1W-02 -1 1 - 1 1 X X X X X X X X X X X X X X	
	· · · · ·
§	<del> </del>
ANCHEMO375	<del></del> -
Company Date Time Received by Company Container types: M=Metal Tu	
Relinquished by  Relinquished by  A=Air Bag P=Plastic bo	
Relinquisted by Company G=Glass bottle V=VOA VIII	ule

Southland Tech. Services, Inc.

1801 Telegraph Road, Suite L & K Viontebello, CA 90640 Tel: Fax: (323) 888-0728 (323) 888-1509 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WIIITE with report, PINK to courier.



**Environmental Laboratories** 

10-21-2003

Mr. Hiram Garcia Blakely Environmental Investigations, Inc. 4359 Phelan Road Phelan, CA 92371

Project:

Angeles Chemical Co.

Project Site:

8915 Sorensen Ave., Santa Fe Springs, CA

Sample Date:

09-17-2003

Lab Job No.:

BL309105

Dear Mr. Garcia:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 09-17-2003 and analyzed for the following parameters:

EPA 8015M (Gasoline)

EPA 8260B (VOCs by GC/MS)

EPA 160.1 (Total Dissolved Solids)

EPA 352.1 (Nitrate)

EPA 325.3 (Chloride)

EPA 375.4 (Sulfate)

EPA 376.1 (Sulfide)

EPA 7380 (Total Iron)

Ferrous Iron

EPA 7460 (Manganese)

EPA 310.1 (Alkalinity)

Standard Method 4500 (Carbonate & Bicarbonate)

EPA 415.1 (Total Organic Carbon, Dissolved Organic Carbon)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Chloride, sulfide, Alkalinity, Carbonate & Bicarbonate analyses were subcontracted to Americhem Testing Laboratory. TOC & DOC analyses were subcontracted to Associated Laboratories. Their original reports are attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

1

Sincerely,

Roger Wang, Ph. D. Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

ANCHEMØ376



#### **Environmental Laboratories**

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309105

Date Reported: 10-21-2003 Date Sampled: 09-17-2003

Project:Angeles Chemical Co.

Matrix: Water

Date Sampled;

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

			Cs by G			eporting U			
DATE A			09-24	09-24-03	09-24-03	09-24-03	09-24-03	09-24-03	09-24-03
DILUTIO	N FAC	TOR		2.5	10	2.5	ì	2	25
LAB S.	A MIDT	e in		BL309105	BL309105	BL309105	BL309105	BL309105	BL309105
				-1	-2	-3	-4	-5	-6
CLIENT S.	AMPL	E LD.	•	MW-02	MW-09	MW-12	MW-13	MW-15	MW-16
COMPOUND	MDL	PQL	MB						
Dichlorodifluoromethane	2	5	ИD	ДN	ND	ND	ND	ND	ND
Chloromethane	2	- 5	ND	ND	מע	ND	ND	סא	ND
Vinyl Chloride	2	2	NĎ	70.6	<sup></sup> 296	36.0	ND	51	588
Bromomethane	2	5	ND	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND	DN
1,1-Dichloroethene	2	5.	ND	108	1,620	14.5	27.2	98.0	2,470
lodomethane	2	5	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	מא	ND	ND	מא	ND	ND	ND
1,1-Dichloroethane	2	5	ND	81.8	1,950	505	ND	88.0	4,450
2,2-Dichloropropane	2	5	ND	ND	ND	מא	ND	ND	Й
cis-1,2-Dichloroethene	2	5	ND	402	648	8.0j	25.2	436	998
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ДИ	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	5	ND	ND.	ND	ND	ND	ND	NO
1,1,1-Trichloroethane	2	5	ND	6.0 j	ND	8.7j	ND	6.4 j	ND
Carbon tetrachloride	2	5	ND	ND	ND	ND"	ND	ND	ND
1,1-Dichloropropene	2	5	QN	ИĎ	ND	ND	ND	ND	ND
Benzene	ī	1	ND	6.0	75.0	5.5	ND	5.6	72.0
Trichloroethene	2	2	ND	18.8	47.0	7.5	95.2	16.0	2,530
1,2-Dichloropropane	2	5	ND	ND	ND	NĐ	ND	ND	ND
Bromodichloromethane	2	5	סמ	ND	ND	ND	ND	DD	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2	3	UN	ND	ЙĎ	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	МD	ND	ND	D
1,1,2-Trichloroethane	2	3	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND	D	ND
Dibromochloromethane	2	5	ND	ND	ND	D	ИД	ND	ND
2-Chloroethylvinyl ether	2	5	DD	ND	ND	ИD	ND	ND	ND
Bromotorm	2	5	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	QИ	ND	ND	17.0	מא	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND	ND

ANCHEM0377



Environmental Laboratories

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309105

Date Reported: 10-21-2003

Project:Angeles Chemical Co.

Matrix: Water

Date Sampled: 09-17-2003

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MDB	MW-02	MW-09	MW-12	MW-13	MW-15	MW-16
Toluene	1	1	ND	3.1	ND	ND	ND	2.0	ND
Tetrachloroethene	2	2	ND	45.1	131	12.5	145	36.0	273
1,2-Dibromoethane(EDB)	2	- 5	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND .	ND *
1,1,1,2-Tetrachloroethan	2	5	מא	ND	ΝĎ	ND	ND	ND	ND
Ethylbenzene	1	1	ND	ND	ND	52.5	2.0	ND"	מא
Total Xylenes	1	1	ND	ИĎ	ND	9.0	ND	ND	ND
Styrene	2	5	מא	ИĎ	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethan	2	5	ND	ND	ND	מא	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	מא	ND	ND	45	סא	ND	ND
2-Chiorotoluene	2	5	ND	ND	ND	ИД	ND	ND	ND
4-Chlorotoluene	2	3	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	DI	ND	ND	92.0	ND	ND	ND
tert-Butylbenzene	2	- 5	da	ND	ND	ND	ND	NĎ	ND
1,2,4-Trimethylbenzene	2	3	ND	ND	ND	110	ND	מא	ND
Sec-Butylbenzene	2	- 5	ND	ND	ND	ND	מאַ	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ØИ	ND	ДN	ND
p-Isopropyltoluene	2	- 5	ND	ND	ND	ND	ND	ЙĎ	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	QN	ND	מא
1,2-Dichlorobenzene	2	. 5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	3	ND	ND	ND	ND	ND	ND	ND
I,2,4-Trichlorobenzene	2	3	ND	ND	ND	СN	ND	ND	ND
1,2-Dibromo-3- Chloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	div div	ND	ND
Naphthalene	2	-5	מא	ND	ND	22.0	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Acetone	5	25	ND	ND	ND	מא	ND	ND	ND
2-Butanone (MEK	3	25	ďЙ	ND	סא	ND	QN	ND	ND
Carbon disultide	5	25	ДИ	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	5	25	ND.	ND	ND	ND	ND	ND	ND
2-Hexanone	. 5	25	מא	QN	מא	ИD	ND	ND	ND
Vinyl Acetate	5	25	ND	ИD	ND	ND	ND	ND	ND
1,4-Dioxane	30	100	ND	ND -	7,150	מא	ND	ND	ND
MTBE	2	2	ND	ND	ND	· ND	ND	- מא	ND
ETBE	2	2	ND	ND	ND	ND	ND	ND	ND
DIPE	2	2	ND	ND	ND	ND.	ND	ND	ND
TAME	2	2	ND	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	10	10	ND	ND	ND	ND	ND	ND	מא

MDL⊐Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF × MDL), j=tract concentration.

ANCHEMØ378



**Environmental Laboratories** 

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309105

Date Reported: 10-21-2003

Project:Angeles Chemical Co.

Matrix: Water

Date Sampled: 09-17-2003

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit; ppb

						eporting Un	ու։ թիօ		
DATE A		1	09-24	09-24-03					
DILUTIO		1	5	50					
LAB SAMPLE LD. CLIENT SAMPLE LD.				1		BL309105			
				<b>-</b> 7	-8	-9			
				MW-20	MW-21	MW-26			
COMPOUND	MDL	PQL	MB					1	
Dichlorodifluoromethane	2	5	ND	ND	ND	ND			
Chloromethane	2		ND	ND	ND	ND		1	
Vinyl Chloride	2	2	ND	ND	31.5	ND .			
Bromomethane	2	5	ND	ND	ЙĎ	ND		1	
Chloroethane	2	ō	ИĎ	D	ND	ND			-
Trichlorotluoromethane	2	5	ND	ND	ND	МD		†	
1,1-Dichloroethene	2	3	ND	45.7	1,800	5,600			
Iodomethane	2	5	ND	ND	ND	ND			1
Methylene Chloride	2	5	ND	ND	ND	14,600		<del> </del>	
trans-1,2-Dichloroethene	2	5	ND	ND	12.0 j	120		-	
1,1-Dichloroethane	2	5	ND	28.5	1,370	1,670			
2,2-Dichloropropane	2	5	ИD	NĎ	ND	ND			
cis-1,2-Dichloroethene	2	5	ИĎ	4.6	2,450	2,130		<u> </u>	
Bromochloromethane	2	5	ND	NĎ	ND	ND			<b>—</b>
Chloroform	2	5	ND	ND	ND	ND CM			-
1,2-Dichloroethane	2	5	ND	NĎ	ND	ND		<del>1                                    </del>	
1,1,1-Trichloroethane	2	3	GN	8.6	150	1,790		<del> </del>	<u> </u>
Carbon tetrachloride	2	5	ND	ND	ND	ND		+	
1,1-Dichloropropene	2	5	ND	NĎ	ND	ND		" ""	†
Benzene	1	1	ND	ND	53.0	270		<del> </del>	<del>                                     </del>
Trichloroethene	2	2	ND	6.2	180	2,100		<del> </del>	<u></u>
1,2-Dichloropropane	2	5	ND	ND	ND	ND			<del>                                     </del>
Bromodichloromethane	2	5	מא	ND	ND	ND			<u> </u>
Dibromomethane	2	5	CN	ND	ND	ND	-	1	<del>                                     </del>
trans-1,3-Dichloropropene	2	-5	ND	ND	ND	ND		1	<del>                                     </del>
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND			
1,1,2-Trichloroethane	. 2	5	ND	ND	ND	ND			<del>                                     </del>
1,3-Dichloropropane	2	5	ND	ND	ND	ND			<del></del>
Dibromochloromethane	2	5	ND	ND	ND	ND			<u> </u>
2-Chloroethylvinyl ether	2	5	ND	ND	ND	ND			·
Bromoform	2	5	ND	ND	ND	ND		<del></del>	1
Isopropylbenzene	2	5	ND	ND	16.5 j	ND		1	
Bromobenzene	3	5	ND	ND	ND	ND		<del> </del>	<del>                                     </del>

ANCHEMØ379



Environmental Laboratories

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309105

Date Reported: 10-21-2003

Project: Angeles Chemical Co.

Matrix: Water

Date Sampled: 09-17-2003

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-20	MW-21	MW-26	. (ppo)	<del></del>	
Toluene	1	1	ND	ND ND	10.0				
Tetrachioroethene	2	2	ND	18.3	232	10,500			
1,2-Dibromoethane(EDB)	2	3	ND	ND	_	2,930 ND			
Chiorobenzene	2	5	ND	ND ND	NĐ			<u> </u>	
1.1.1.2-Tetrachloroethan	2	5			ND	ND			
			ND	מא	ND	ND			
Ethylbenzene	1	1	ИD	ИD	5.5	2,900		1	]
Total Xylenes	1	1	ND	מא	93.0	6,870			
Styrene	2	5	ND	ND	ND	ИD			
1,1,2,2-Tetrachloroethan	2	Ź	ND	מא	ФИ	ND			
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND			
n-Propyibenzene	2	5	מא	ND	10.5 j	ND	"		
2-Chlorotoluene	2	5	ND	ИФ	ND	ND			
4-Chlorotoluene	2	5	ДĀ	ND	ND	ND			
1,3,5-Trimethylbenzene	2	5	NĐ	ND	ND	170j			<u> </u>
tert-Butylbenzene	2	5	МĎ	ND	ND	ND			
1,2,4-Trimethylbenzene	2	5	ND	ND	20.3j	555			1
Sec-Butylbenzene	2	5	ND	ND	ND	ND			·
1,3-Dichlorobenzene	2	5	_ מא	ND	ND	ND		1	1
p-Isopropyitoluene	2	5	ДN	ND	ND	ND		<u> </u>	
1,4-Dichlorobenzene	2	Ĵ.	ND	ND	ND	ND			
1,2-Dichlorobenzene	2	5	ЙŅ	ND	ND	ND			
n-Butylbenzene	2	- 5	ND	ND	ND	ND		-	1
1,2,4-Trichiorobenzene	2	5	ND	ND	ND	ND			1
1,2-Dibromo-3-	2	5	NTS	N. 575	NT	1/0			1
Chloropropane		٠	ND	ND	ND	ND			
Hexachlorobutadiene	2	5	ND	ND	ND	ND			
Naphthalene	2	3	ДИ	ND	NĎ	125			1
1,2,3-Trichlorobenzene	2	5	ND	ИĎ	ND	ND		1	<u> </u>
Acetone	5	25	ND	ND	ND	24,500		<del>'</del>	
2-Butanone (MEK	- 5	25	ND	ND	ND	11,000		1	<del>- </del>
Carbon disulfide	5	25	ND	ND	ND	ND		· · · · · · · · · · · · · · · · · · ·	
4-Methyl-2-pentanone	5	25	ND	ND	ND	7,350			
2-Hexanone	5	25	ND	ND	ND	ND			<del> </del>
Vinyl Acetate	5	25	ND	<u> </u>	ND	ND			<del> </del>
1,4-Dioxane	50	100	- סמ	88 j	ND	ND		<del>- </del> -	<del> </del>
MTBE	2	2	ND	ND	ND	ND		<del>- </del>	<del> </del>
ETBE	2	2	מא	ND	ND	ND		<del>                                     </del>	<del>                                     </del>
DIPE	2	2	ND	ND	ND	ИD	<b></b>	+	<del>                                     </del>
TAME	2	2	ND	ND "	ND	ND		<del></del>	·
T-Butyl Alcohol	10	10	ND	ND	ND	ND	<del>                                     </del>	1	<del> </del>

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF × MDL).

ANCHEM0380



#### **Environmental Laboratories**

10-21-2003

Client:

Blakely Environmental Investigations, Inc.

Lab Job No.:

BL309105

Project: Project Site: Angeles Chemical Co.

Date Sampled:

09-17-2003

Matrix:

8915 Sorensen Ave, Santa Fe Springs Water

Date Received:

09-17-2003

Batch No.:

AI22-GW1

Date Analyzed:

09-22-2003

EPA 8015M (Gasoline) Reporting Units: µg/L (ppb)

Sample ID	Lab ID	Gasoline (C4-C12)	Method Detection Limit	PQL
Method Blank		ND	50	50
MW-02	BL309105-1	228	50	50
MW-09	BL309105-2	1,280	50	50
MW-12	BL309105-3	1,300	50	50
MW-13	BL309105-4	106	50	50
MW-15	BL309105-5	226	50	50
MW-16	BL309105-6	1,460	50	50
MW-20	BL309105-7	ND	50	50
MW-21	BL309105-8	998	50	50
MW-26	BL309105-9	59,200	50	50

ND: Not Detected (at the specified limit)

ANCHEMØ381



#### **Environmental Laboratories**

10-21-2003

## EPA 8015M (TPH) Batch QA/QC Report

Client:

Blakely Environmental Investigations, Inc.

Lab Job No .:

BL309105

Project:

Angeles Chemical Co.

Lab Sample ID:

R309132-1

Matrix: Batch No.: Water AI22-GW1

Date Analyzed:

09-23-2003

I. MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1000	994	1,100	99.4	110.0	10.1	30	70-130

#### IL LCS Result Unit ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-g	1,060	1,000	106.0	80-120

ND: Not Detected

ANCHEM0382



Environmental Laboratories

10-21-2003

### EPA 8260B Batch QA/QC Report

Client:

Blakely Environmental Investigations, Inc.

Lab Job No.:

BL309105

Project: Matrix: Angeles Chemical Co.

Lab Sample ID:

R309116-3

Batch No:

0924-VOAW

Water

Date Analyzed:

09-24-2003

#### I. MS/MSD Report Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
l,l- Dichloroethene	ND	20	23.2	26.0	116.0	130.0	11.4	30	70-130
Benzene	ND	20	<b>2</b> 3,5	24.5	117.5	122.5	4.2	30	70-130
Trichloro- ethene	ND	20	21.4	21.2	107.0	106.0	0.9	30	70-130
Toluene	ND	20	21.5	23.8	107.5	119.0	10.2	30	70-130
Chlorobenzene	ND	20	20.4	21.4	102.0	107.0	4.8	30	70-130

#### IL LCS Result Unit: ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	20.0	20	100.0	80-120
Benzene	18.8	20	94.0	80-120
Trichloro-ethene	18.9	20	94.5	80-120
Toluene	18.4	20	92.0	80-120
Chlorobenzene	17.0	20	85.0	80-120

ND: Not Detected (at the specified limit)

ANCHEM0383

Phone: (323) 888-0728 Fax; (323) 888-1509

### SOUTHLAND TECHNICAL SERVICES, INC.

CHAIN OF CUSTODY RECORD

Lab Job Number 31309144

Address 12 24 hours 12 25 Place Rd. Place Rd. Place Rd. Place Respect Windows 12 25 Place Rd. Pl			CHAIN	Or C	OSTOD	1 1000	0100	_			<del></del>		<del></del> :							T.A.T. Requested
Trip Blank  Tetarian Alemina  Thore Sample Collect  Lab  Sample Collect  Sample Collect  Sample Collect  Sample ID  Date Time Type  Proserve  Container Collect  Alemina  Trip Blank  Trip Blank  Company  Date  Time Company  Date  Time Company  Date  Time Company  Date  Time Company  Date  Time Company  Date  Time Company  Date  Time Received M. X. X. X. X. X. X. X. X. X. X. X. X. X.	Client:	و استعداد	Two	* + ·	time	Tw.						Ana	lyses	Req	neste	d				
Client Sample ID  Sample ID  Date Time Type Preserve container   Sample ID  AUU -   II	* a /Virose ~	_	_ `	- 11	13101.3	)		<u> </u>				íź.	<u>:</u>				, <u>\$</u>	#7		□ 2-3 days □ Normal
Client Sample ID  Sample ID  Date Time Type Preserve container   Sample ID  AUU -   II	4359 1		the	lar,	<u>(a.</u>	<u> 4237</u>	<u>·(                                    </u>	ĮĒ				) [E	firm			Σ.	멅	<b> -₹</b>		Sample Condition
Client Sample ID  Sample ID  Date Time Type Preserve container   Sample ID  AUU -   II	Report Attention	Phone   TJ\6   Q0   TJ	Fax Alto Milar	9 <del>5</del> 72	Sampled by	R.L.:	يعانساند	þΣ	€		1	es. E	ő	<u>a</u>	K.	, <u>\$</u>		Į,	94	Z-Chilled X Intact
Client Sample ID  Sample ID  Date Time Type Preserve container   Sample ID  AUU -   II	Project Name/No.	Project Site	(N)787	- 8305	<del></del>	<del>27 114</del>	with the	E	[충]	<u>§</u>	ි පි	icua:	<u>⊞</u>	<u> </u>  ~	14	હ	1	(ZO	3/	
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Discripted by   Company   Discripted by   Company   Company   Discripted by   Company    Client		Sample	Collect		Sample	& size of	8	Σ	Σ	) B	E C	) B(		ર્વું√	17	8	Å	<u>}</u>	Remarks	
Discripted by   Company   Discripted by   Company   Company   Discripted by   Company		Date	Time		Preserve	container	Š	15	3015	826(	3260	826(	X	3	4	چ ۲	녕	[2]	]	
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Company G=Glass bottle V=VOA vial		Com	12007	· <del>···</del>	Date	Time	Received by	7	<del></del>			Comp	(sult. \		<u>_</u>				ŋes:	
The President Received by Company Company	Relinguished by	RFI	, m,		718-03		1	سا س			<u>~</u>			· 					nla	
	Relinquished by				Date	Time	Received by					Comp	апу				U-CH			THE CONTROL

Southland Tech. Services, Inc.

7801 Telegraph Road, Suite L & K

Montebello, CA 90640

Tel: (323) 888-0728

Fax:

(323) 888-1509

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Distribution: WHITE with report, PINK to conrier.



**Environmental Laboratories** 

10-21-2003

Mr. Hiram Garcia Blakely Environmental Investigations, Inc. 4359 Phelan Road Phelan, CA 92371

Project:

Angeles Chemical Co.

Project Site:

8915 Sorensen Ave., Santa Fe Springs, CA

Sample Date:

09-18-2003

Lab Job No.:

BL309114

Dear Mr. Garcia:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 09-18-2003 and analyzed for the following parameters:

EPA 8015M (Gasoline)

EPA 8260B (VOCs by GC/MS)

EPA 160.1 (Total Dissolved Solids)

EPA 352.1 (Nitrate)

EPA 325.3 (Chloride)

EPA 375.4 (Sulfate)

EPA 376.1 (Sulfide)

EPA 7380 (Total Iron)

Ferrous Iron

EPA 7460 (Manganese)

EPA 310.1 (Alkalinity)

Standard Method 4500 (Carbonate & Bicarbonate)

EPA 415.1 (Total Organic Carbon, Dissolved Organic Carbon)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Chloride, sulfide, Alkalinity, Carbonate & Bicarbonate analyses were subcontracted to Americhem Testing Laboratory. TOC & DOC analyses were subcontracted to Associated Laboratories. Their original reports are attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Roger Wang, Ph. D. Laboratory Director

Enclosures

ANCHEMØ385

This cover letter is an integral part of this analytical report.



**Environmental Laboratories** 

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309114

Date Reported: 10-21-2003

Project:Angeles Chemical Co.

Matrix: Water

Date Sampled: 09-18-2003

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: ppb

DATE			09-24	C/MS, Pag	•	_		00 04 007	-
DILUTIO			U <b>9-</b> 24			09-24-03		09-24-03	
DILUTK	M IA	CIOR		100	200	25	100	I	
LAB S	AMPL	E LD.				B .		BL309114	
				-1	-2	-3	-4	-5	
CLIENT S				MW-03	MW-10	MW-11	MW-18	Trip Blank	
COMPOUND	MDL	PQL	МВ						
Dichlorodifluoromethane	2	5	ND	ND	ND	ИĎ	ND	ן מא	
Chloromethane	2	5	ND	ND	ND	ND	ND	סא	
Vinyl Chloride	2	2	ND	4,220	4,510	1,510	800	ND	
Bromomethane	2	5	ND	NĎ	ND	ND	ND	ND	
Chloroethane	2	5	ND	1,030	940 j	1,700	460 j	מא	
Trichlorofluoromethane	2	5	ND	ND	ND	NĎ	ND	מא	
1,1-Dichloroethene	2	5	ND	1,490	1,760	1,050	4,260	QN.	1
Iodomethane	2	5	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	5	ND	ND	ND	ND	ND	ND.	
trans-1,2-Dichloroethene	2	5	סא	ND	ND	ND	ND	ND	
l,I-Dichloroethane	2	- 5	ND	48,500	47,400	43,000	7,040	ND	
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	2	5	ND	9,310	9,290	6,950	15,900	ND	
Bromochloromethane	2	- 5	ND	ND	ND	ND	ND	ND	
Chloroform	2	3	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	2	5	ND	ND	ND	103 j	ND	ND	
1.1.1-Trichloroethane	2	5	ND	4,800	4,510	ND	420	ND	14%
Carbon tetrachloride	2	5	ND	ND	ND	ND	ND	ND	
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	
Benzene	1	1	ND	400	340	775	380	ND -	
Trichloroethene	2	2	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropane	2	5	סמ	ND	ND	ND	ND	- ND	
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND	
Dibromomethane	2	5 "	ND	ND	ND	ND	ND	ND	
trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	-
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND	
1,3-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND	
Dibromochloromethane	$\frac{\tilde{2}}{2}$	5	ND	ND	ND	ND	ND	ND	
2-Chloroethylvinyl ether	2	. 5	ND	ND	ND	ND	ND	ND	<u></u>
Bromoform	2	5	ND	ND	ND	ND	ND	ND	
Isopropylbenzene	2	5	ND	ND	ND	165	+ ND	ND	
Bromobenzene	1 2	5	ND	ND	ND	ND	- AD	ND	
D. VIII VOIIZUIL	. <i>"</i>		1417	T NO	1 170	) ND	עגאי	ַן אָט וּ	I

ANCHEMØ386



#### Environmental Laboratories

Client: Blakely Environmental Investigations, Inc.

Lab Job No.: BL309114

Date Reported: 10-21-2003

Project:Angeles Chemical Co.

Matrix: Water

Date Sampled: 09-18-2003

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: (ppb)

COMPOUND	MDL	PQL	MB	MW-03	MW-10	porting Uni MW-11	MW-18	Trip Blank	<del></del>
Toluene	1	-1	ND	16,000	13,800	4,030	3,700	ND	
Tetrachloroethene	$\frac{1}{2}$	2	ND	ND ND	ND	ND	ND	ND	<del></del> -
1,2-Dibromoethane(EDB)	$-\frac{\overline{2}}{2}$	5	ND	ND	ND	ND	ND	ND	
	2	3	ND	ND	ND	ND	ND	ND	
Chlorobenzene	2		ND	ND ND	ND ND	·	ND ND		
1,1,1,2-Tetrachloroethan		5				ND		ND	
Ethylbenzene	1	1	ND	1,570	1,360	1,010	740	ND	
Total Xylenes	1	ĭ	ND	4,950	4,460	1,320	2,620	ND	
Styrene	2	5	ND	ND	ND	ND	ИD	ND	
1,1,2,2-Tetrachloroethan	2	. 5	ND	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	2	5	ND	ND	ΝD	NĎ	ND	ND	
n-Propylbenzene	2	5	ND	ИD	ND	303	מא	ND	
2-Chlorotoluene	2	5	מא	ЙĎ	ND	ND	ND	ND	
4-Chlorotoluene	2	5	ND	NД	ND	NĎ	ND	ИD	
1,3,5-Trimethylbenzene	-2	- 5	ND	449	320 j	570	ز 400	מא	
tert-Butylbenzene	2	5	ЙĎ	ND	ND	ND	ND	סא	
1,2,4-Trimethylbenzene	2	5	ND	1,690	1,430	1,830	1,680	מא	
Sec-Butylbenzene	2	5	ND	ND	ND	ND	מא	ND	
1,3-Dichlorobenzene	2	- 5	_ND	ИD	ND	ND	ND	ND	
p-isopropyitoluene	2	5	DK	NĎ	ND	ND	ND	ND	
1,4-Dichlorobenzene	2	3	ND	ND	ND	ND	ND	NO.	
1,2-Dichlorobenzene	2	5	ND	ИĎ	ND	ЙĎ	ΝD	ND	
n-Butylbenzene	2	- 3	מא	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND.	
1.2-Dibromo-3-	1 -	<del>  -</del>	177	3.775	3773	275	3773	277	
Chloropropane	2	5	ND	ND	ND	ND	ND	ND	
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND	
Naphthalene	2	3	ND	ND	DN	ND	ND	DN	
1,2,3-Trichlorobenzene	2	5 "	ND	ND	ND	מא	ND	ND	
Acetone	5	25	DO	76,500	73,000	6,950	44,200	ND	· · · · · · · · · · · · · · · · · · ·
2-Butanone (MEK)	5	25	ND	64,000	58,000	5,580	32,000	ND	
Carbon disulfide	-5	25	ND	ND	ND	ND	ND	ND	
4-Methyl-2-pentanone	5	25	ND	11,100	10,900	1,370	4,100	ND	
2-Hexanone	3	25	ND	ND	ND	ND	ND	ND	
Vinyl Acetate	5	25	ND	ND	ND	ND	ND	ND	
1,4-Dioxant	50	100	ND	ND	ND ND	ND	ND	ND	
MTBE	2	2	ND	ND	מא	ND	ND	ND	
ETBE	2	2	ND	ND	ND	ND	ND	ND	
DIPE	2	2	ND	ND	ND	ND	ND	ND	
TAME	2	1 2	QN QN	ND	ND	ND	ND	ND	
	10	10	ND	ND	ND ND	ND	ND	ND	<u></u>
T-Butyl Alcohol	10	1 10	עא	ND	עא	<u></u>	עת ו	עיי	<u> </u>

3

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF × MDL), j=trace construction.

ANCHEMØ387

Phone: (323) 888-0728 Fax: (323) 888-1509



### **Environmental Laboratories**

10-21-2003

Client:

Blakely Environmental Investigations, Inc.

Lab Job No.:

BL309114

Project:

Angeles Chemical Co.

Date Sampled:

09-18-2003

Project Site: Matrix:

8915 Sorensen Ave, Santa Fe Springs Water

Date Received:

09-18-2003

Batch No .:

AI23-GW1

Date Analyzed:

09-23-2003

EPA 8015M (Gasoline) Reporting Units: µg/L (ppb)

Sample ID	Lab ID	Gasoline (C4-C12)	Method Detection Limit	PQL
Method Blank		ND	50	50
MW-03	BL309114-I	85,200	50	50
MW-10	BL309114-2	69,600	50	50
MW-11	BL309114-3	30,200	50	50
MW-18	BL309114-4	44,900	50	50
Trip Blank	BL309114-5	ND	50	50
		'''		<u> </u>

ND: Not Detected (at the specified limit)

ANCHEMØ388



**Environmental Laboratories** 

10-21-2003

#### EPA 8015M (TPH) Batch QA/QC Report

Client:

Blakely Environmental Investigations, Inc.

Lab Job No.:

BL309114

Project:

Angeles Chemical Co.

Lab Sample ID:

R309116-3

Matrix: Batch No.: Water AI23-GW1

Date Analyzed:

09-23-2003

#### I. MS/MSD Report Unit: ppb

Analyte	Sample Conc,	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept Limit	%Rec Accept. Limit
трн-д	ND	1000	1,060	1,030	106.0	103.0	2.9	30	70-130

#### II. LCS Result Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
TPH-g	959	1,000	95.9	80-120

ND: Not Detected

ANCHEM0389



**Environmental Laboratories** 

10-21-2003

### EPA 8260B Batch QA/QC Report

Client:

Blakely Environmental Investigations, Inc.

Lab Job No.:

BL309114

Project: Matrix: Angeles Chemical Co.

Lab Sample ID:

R309116-3

Batch No:

0924-VOAW

Water

Date Analyzed:

09-24-2003

#### L MS/MSD Report Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept, Limit	%Rec Accept. Limit
1,1- Dichloroethene	ND	20	23.2	26.0	116.0	130.0	11.4	30	70-130
Benzene	ND	20	23.5	24.5	117.5	122.5	4.2	30	70-130
Trichloro- ethene	ND	20	21.4	21.2	107.0	106.0	0.9	30	70-130
Toluene	ND	20	21.5	23.8	107.5	119.0	10.2	30	70-130
Chlorobenzene	ND	20	20.4	21.4	102.0	107.0	4.8	30	70-130

#### IL LCS Result Unit ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	20.0	20	100.0	80-120
Benzene	18.8	20	94.0	80-120
Trichloro-ethene	18.9	20	94.5	80-120
Toluene	18.4	20	92.0	. 80-120
Chlorobenzene	17.0	20 ·	85.0	80-120

ND: Not Detected (at the specified limit)

ANCHEM0390

Phone: (323) 888-0728 Fax: (323) 888-1509



### ASSOCIATED LABORATORIES

806 N. Batavia • Orange, CA 92868 (714) 771-6900 • Fax: (714) 538-1209 117097

CHAIN OF CUSTODY RECORD

Date 9/19/03 Page / of 2

	<del></del>		i							
CLIENT Southland Tea	h. Survices				<u>.</u>	<del></del>			<del></del>	
ADDRESS 7801 Talegray Montebello.	oh Rd. #L	A	PROJECT M	IANAGE	R Guol	241	LIAD		Sample	as Inlact Yes No
Montebello.	CA 90640		PHONE NU	MBER :	32.3 88	Sample Ambient Cooled From Sample Ambient 24 Mr.			Seals Intact YesNo AmbienI Cooled Frozen	
PROJECT NAME Angeles Che			SAMPLERS: (Signature)  Same Day 24 Hr Regular 48 Hr			Day 24 Hr r 48 Hr				
SAMPLE NUMBER	LOCATION DESCRIPTION		DATE	TIME	SA WATER	MPLE T	YPE SOLID	NO OF CNTNRS	SUSP. CONTAM.	
-MW-14			9/16/03		V			1		Total org. Corbon Dissolved City. C.
MW-17		· · · · · · · · · · · · · · · · · · ·	74		V					TOC/DOC.
-MW-23			te		<b>V</b>					ic v
-MW-24			te		\ \		<u>.</u>			11 61
-MW-25			el		<b>V</b>		ļ			и и
-MW-09			9/17/03		<u></u>		ļ			и ч
MW-12			1	ļ			<u> </u>			<u> </u>
MW-13	ANCHEM039		<u> </u>		V					и ч
MW-15	煮		и		<u> </u>		ļ	<del>                                     </del>	-	<u> и и</u>
-MW-16 16	 		<u> </u>	ļ	<u> </u>		<del> </del> -		<u></u>	
[NW-20.	·		<u> </u>	<u> </u>			<del>                                      </del>	<u> </u>	<u> </u>	. <u>u</u> -)
MW-21			v1		$  \vee  $		-	<del>                                     </del>	ļ	
TMW-26			<u> </u>		<u></u>		10-1-6		1 horobu	authorize the performance of the above
Relinguished by: (Signature)			r: (Signature)				Date/Tim		indicaled	•
Relinguished by: (Signature)		1 * 4	y Laboratory f	or analys	is: -19-27	85	Dale/Tim	e	pr	2 W6
Special Instructions:									DISTRIB	UTION: While with report. Yellow to AL,



#### ASSOCIATED LABORATORIES

806 N. Balavia • Orange, CA 92868 (714) 771-6900 • Fax: (714) 538-1209 117977

CHAIN OF CUSTODY RECORD

Date 9/18/03 Page 2 of 2

ADDRESS 780	hland Tech. Service of Telegraph Rd. #1		<b>EROJECT</b> M	MANAGE	A BUD	Rul	<i>L1</i>	18D	Sample	es Intact Yes No No No Seals Intact Yes No Frozen
<del></del>	o, CA 90640		PHONE NUI SAMPLERS	: (Signali	<u>3ጋን 8</u> ure)	88 0	728	<u>.</u>	i Same l	e Ambient Cooled Frozen Day 24 Hr r 48 Hr
Angel SAMPLE NUMBER	LOCATION DESCRIPTION	<b>__</b>	DATE	TIME	S/ WATER	MPLE T	(PE SOLID	NO OF	SUSP.	TESTS
MW-14	ر.) س <sub>ا</sub> د		9/18/03		<u></u>			,	<del>{</del>	
7MW-11	114		, ,		V		-			Total org Combon Dissolvadory Toc/DOC
WN-18			ы		1			4.	<u> </u>	TOC DOG
		<del></del>						<u> </u>		ICC-1 KW.
D. C.		· · · · · · · · · · · · · · · · · · ·								
ANCHEMØ392										
พ พ - พ	·			<del></del>						
Relinquished by: (S	Signature)  m' Lra	Received by	: (Signature)				Date/Tim		indicated	
Relinquished by: (S	Signalure)	Received by (Signature)		or analys	sis:		Date/7im		,	no V-6
Special instructions	s:	,1				<u>-</u>			DISTRIB	UTION: White with report. Yellow to AL,



#### ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Southland Technical Services

7801 Telegraph Rd.- Suite L

(6304)

LAB REQUEST

117097

ATTN: Roger Wang

REPORTED

09/29/2003

Montebello, CA 90640

RECEIVED

09/18/2003

PROJECT

Angeles Chemical

SUBMITTER

Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
464228	MW-14
464229	<b>MW</b> -17
464230	MW-23
464231	MW-24
464232	MW-25
464233	MW-09
464234	MW-12
464235	MW-13
464236	MW-15
464237	MW-16
464238	MW-20
464239	MW-21
<del>4</del> 64240	MW-26

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Edward S. Behare, Ph.D.

Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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Environmental

Order #:

464228

Client Sample ID: MW-14

Matrix: WATER

)ate Sampled: 09/16/2003

	Analyte	Result	DLR	Units	Date/Analyst
9060 Total	Organic Carbon (TOC)				
† <del>-</del>	Dissolved Organic Carbon	2.8	0.5	mg/L	09/22/03 QP
	Total Organic Carbon	3.3	0.5	mg/L	09/22/03 QP
<u></u>					
Order#:					•

Matrix: WATER

pate Sampled: 09/16/2003

Analyte	Result	DLR	Units	Date/Analyst
060 Total Organic Carbon (TOC)				
Dissolved Organic Carbon	1.3	0.5	mg/L	09/22/03 QP
Total Organic Carbon	1.6	0.5	mg/L	09/22/03 QP
Order #: 464230 Client Sample II	1.101/22			

Antrix: WATER

Date Sampled: 09/16/2003

Analyte	Result	DLR	Units	Date/Analyst
060 Total Organic Carbon (TOC)				
Dissolved Organic Carbon	1.4	0.5	mg/L	09/22/03 QP
Total Organic Carbon	1.9	0.5	mg/L	09/22/03 QP

Order #:

464231]

Client Sample ID: MW-24

Matrix: WATER

Date Sampled: 09/16/2003

Analyte	Result	DLR	Units	Date/Analyst
3060 Total Organic Carbon (TOC)	· · · · ·			
Dissolved Organic Carbon	1.0	0.5	mg/L	09/22/03 QP
Total Organic Carbon	2.0	0.5	mg/L	09/22/03 QP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Analytical Results Report Lab Request 117097 results, page 1 of 5

ANCHEMØ394



CLIENT Southland Technical Services

(6304)

LAB REQUEST 117097

ATTN: Roger Wang

Montebello, CA, 90640

REPORTED

09/29/2003

7801 Telegraph Rd.- Suite L

RECEIVED

09/18/2003

PROJECT Angeles Chemical

SUBMITTER

Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
464241	MW-10
464242	MW-11
464243	WW-18
464244	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Edward S. Behare, Ph.D.

Vice President

NOTE: Unless notified in writing, all samples will be discorded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratones are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mumal protection of the public, our clients, and ourselves, TESTING & CONSULTING Chemical Microbiological Order #: 464232 Client Sample ID: MW-25 Matrix: WATER Date Sampled: 09/16/2003 Analyte Result DLR Units Date/Analyst 2060 Total Organic Carbon (TOC) Dissolved Organic Carbon 1.2 0.5 mg/L 09/22/03 QP Total Organic Carbon 1.5 0.5 mg/L 09/22/03 QP Drder#: 464233 Client Sample ID: MW-09 Matrix: WATER Date Sampled: 09/17/2003 Analyte Result DLR Units Date/Analyst 2060 Total Organic Carbon (TOC) Dissolved Organic Carbon 15 0.5 mg/L 09/22/03 QP Total Organic Carbon 15 0.5 mg/L 09/22/03 Order#: 464234 Client Sample ID: MW-12 Matrix: WATER Pate Sampled: 09/17/2003 Analyte Result DLR Units Date/Analyst 9060 Total Organic Carbon (TOC) Dissolved Organic Carbon 1.8 0.5 mg/L 09/22/03 QP Total Organic Carbon 0.5 mg/L 09/22/03 QP Order#: 464235 Client Sample ID: MW-13 Matrix: WATER Pate Sampled: 09/17/2003 Analyte Result DLR Units Date/Analyst 7060 Total Organic Carbon (TOC) Dissolved Organic Carbon 0.5mg/L 09/22/03 QP DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit ANCHEM0396 ASSOCIATED LABORATORIES Analytical Results Report

Lab Request 117097 results, page 2 of 5

##: 464236   Client Sample ID: MW-15  : WATER amplet: 09/17/2003  Analyte   Result   DLR   Units   Date/Analyst      Ostal Organic Carbon (FOC)	Total Organic Carbon		0.5 mg/L	09/22/03 QP
Dissolved Organic Carbon (TOC)	: WATER	le ID; MW-15		<u></u>
Dissolved Organic Carbon   1.7    0.5 mg/L   09/22/03   QP	Analyte	Result	DLR Units	Date/Analyst
Total Organic Carbon   2.1   0.5 mg/L   09/22/03   QP	otal Organic Carbon (TOC)		•••	
Total Organic Carbon   2.1   0.5 mg/L   09/22/03   QP	Dissolved Organic Carbon	1 171	0.5 mg/I	09/22/03 OP
Analyte   Result   DLR   Units   Date/Analyst		·		
Dissolved Organic Carbon   17	WATER	ole ID: MW-16		
Dissolved Organic Carbon   17	Analyte	Result	DLR Units	Date/Analyst
Dissolved Organic Carbon   17	otal Organic Carbon (TOC)	****		
Total Organic Carbon   18		17)	0.5 mg/I	00/22/03 OP
#: 464238   Client Sample ID: MW-20   Cotal Organic Carbon (TOC)    Dissolved Organic Carbon   1.4   0.5 mg/L   09/22/03   QP    Total Organic Carbon   1.9   0.5 mg/L   09/22/03   QP    Total Organic Carbon   1.9   0.5 mg/L   09/22/03   QP    ##: 464239   Client Sample ID: MW-21   Client Sample ID: MW-2	WINT THE TOWNS AND THE TOWN TO THE TOWN	······································		<del></del>
Dissolved Organic Carbon (TOC)  Dissolved Organic Carbon 1.4 0.5 mg/L 09/22/03 QP  Total Organic Carbon 1.9 0.5 mg/L 09/22/03 QP  Total Organic Carbon 1.9 0.5 mg/L 09/22/03 QP  Total Organic Carbon 1.9 0.5 mg/L 09/22/03 QP  Total Organic Carbon (TOC)  Dissolved Organic Carbon (TOC)  Dissolved Organic Carbon (TOC)	-	Dans M	DID 11-74	D-4-/Ah-4
Dissolved Organic Carbon 1.4 0.5 mg/L 09/22/03 QP  Total Organic Carbon 1.9 0.5 mg/L 09/22/03 QP   ##: 464239 Client Sample ID: MW-21  ##: WATER Sampled: 09/17/2003  Analyte Result DLR Units Date/Analyst  Cotal Organic Carbon (TOC)  Dissolved Organic Carbon 2.0 0.5 mg/L 09/22/03 QP	Analyte	Kesuit	DER Units	Date/Analyst
Total Organic Carbon 1.9 0.5 mg/L 09/22/03 QP  x #: 464239 Client Sample ID: MW-21 x: WATER Sampled: 09/17/2003  Analyte Result DLR Units Date/Analyst  Cotal Organic Carbon (TOC)  Dissolved Organic Carbon 2.0 0.5 mg/L 09/22/03 QP	otal Organic Carbon (TOC)			
Client Sample ID: MW-21  x: WATER Sampled: 09/17/2003  Analyte Result DLR Units Date/Analyst  Cotal Organic Carbon (TOC)  Dissolved Organic Carbon   2.0  0.5 mg/L 09/22/03 QP		1.4		<del></del>
Analyte Result DLR Units Date/Analyst  Cotal Organic Carbon (TOC)  Dissolved Organic Carbon   2.0  0.5 mg/L 09/22/03 QP	Total Organic Carbon	1.9	0.5 mg/L	09/22/03 QP
Total Organic Carbon (TOC)  Dissolved Organic Carbon   2.0  0.5 mg/L 09/22/03 QP	X: WATER	ple ID: MW-21	·	
Dissolved Organic Carbon   2.0  0.5 mg/L 09/22/03 QP	Analyte	Result	DLR Unit	s Date/Analyst
	fotal Organic Carbon (TOC)			
				09/22/03 QP
	SOCIATED LABORATORI	Analytical Results Re		EMØ397

er #: 464240 Client Sample II	D: MW-26			
ix: WATER Sampled: 09/17/2003	,			
Analyte	Result	DLR	Units	Date/Analyst
Total Organic Carbon (TOC)			·	
Dissolved Organic Carbon	71		mg/L	09/22/03 QP
Total Organic Carbon	83		mg/L	09/22/03 QP
ler #: 464241 Client Sample I rix: WATER Sampled: 09/18/2003	<b>D:</b> MW-10			
Analyte	Result	DLR	Units	Date/Analyst
	•			
) Total Organic Carbon (TOC)				
	1 6041	12.5	mg/L	09/22/03 QP
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample in: WATER	604    670  	12.5 12.5	mg/L mg/L	09/22/03 QP 09/22/03 QP
Total Organic Carbon  der #: 464242 Client Sample trix: WATER e Sampled: 09/18/2003	(D: MW-11	12.5	mg/L	09/22/03 QP
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample trix: WATER e Sampled: 09/18/2003  Analyte	670			
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample trix: WATER e Sampled: 09/18/2003  Analyte	(D: MW-11	DLR	mg/L Units	09/22/03 QP  Date/Analyst
Dissolved Organic Carbon  Total Organic Carbon  ler #: 464242 Client Sample rix: WATER : Sampled: 09/18/2003  Analyte  Total Organic Carbon (TOC)  Dissolved Organic Carbon	(D: MW-11 Result	DLR	mg/L Units	09/22/03 QP  Date/Analyst  09/22/03 QP
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample rix: WATER sampled: 09/18/2003  Analyte  Total Organic Carbon (TOC)	(D: MW-11	DLR	mg/L Units	09/22/03 QP  Date/Analyst
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample trix: WATER a Sampled: 09/18/2003  Analyte  Dissolved Organic Carbon  Dissolved Organic Carbon	Result	DLR	mg/L Units	09/22/03 QP  Date/Analyst  09/22/03 QP
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample strix: WATER E Sampled: 09/18/2003  Analyte  Dissolved Organic Carbon  Total Organic Carbon  Total Organic Carbon  Client Sample  der #: 464243 Client Sample	Result	DLR	mg/L Units	09/22/03 QP  09/22/03 QP  09/22/03 QP
Dissolved Organic Carbon  Total Organic Carbon  der #: 464242 Client Sample trix: WATER e Sampled: 09/18/2003  Analyte  Dissolved Organic Carbon (TOC)  Dissolved Organic Carbon  Total Organic Carbon  Total Organic Carbon  Client Sample trix: WATER te Sampled: 09/18/2003	Result  169 185 100: ww-18	DLR  2.5 2.5	mg/L mg/L mg/L	09/22/03 QP  09/22/03 QP  09/22/03 QP

Total Organic Carbon 220 2.5 mg/L 09/22/03 QP

Order#:

464244

Client Sample ID: Laboratory Method Blank

Matrix: WATER

Analyte	Result	DLR	Units	Date/Analyst
9060 Total Organic Carbon (TOC)				
Dissolved Organic Carbon	ND	0.5	mg/L	09/22/03 QP
Total Organic Carbon	ND	0.5	mg/L	09/22/03 QP

ANCHEM0399

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



## ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample:

LR 117097-2

Matrix:

WATER

Prep. Date:

09/22/03

Analysis Date:

09/22/03

ID#'s in Batch:

LR 117097

#### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

		Sample	Spike	Matrix	Matrix	%Rec	%Rec	
Test	Method	Result	Added	Spike	Spike Dup	MS	MISD	RPD
тос	415.1	1.6	10	11.2	11.7	96	101	4

ND = "U" - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dupitoate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS	-	80 -	120
RPD LIMITS	<b>=</b>	20	

#### PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS	••			
Value	Result	True	%Rec	L.Limit	H.L.imit
ND	9.9	10	99	80%	120%

Value = Preparation Blank Value; ND = Not-Detected

LCS Result = Lab Control Sample Result

True = True Value of LCS

LLimit / HLimit = LCS Control Limits

-20UrmAN: «ECmarCAir oil RVices
---------------------------------

#### CHAIN OF CUSTODY RECORD

Lab Job Number \_\_\_\_\_

Client: South Land	Technical	Ser	vices.	·Inc.			·		<del></del>		Ana	lyses	Req	neste	d	*			T.A.T. Requested  Rush 8 12 24 hours
Address 7801 Teleg	eraph Rd.	#4.	Mon	tubello,	CA	90640	(3E)				EX)	Œ.	J	J	Fert	erre	Y.		□ 2-3 days □ Normal
Report Auction	255-0728	32.5	1504	[ sauhea o	/		(BTEX,MTBE)	<b>9</b>			8260B (Oxygenates, BTEX)	8260B (MTBE Confirm.)	TDS. Chloride	Sulfide	i	1 - 2	Nitrote . Alkahinity		Sample Condition  Chilled D Intact
Project Name/Ng. Angeles Chelnical	Project Sile Santa	Fe S	prings				(BTT	iasolí	iesel	'OCs)	cygena	TBE	3	. 5,	18	17.	. AL		☐ Sample scals
Client	Lab		Collect		Sample	No.,type*		8015M (Gasoline)	8015M (Diesel)	8260B (VOCs)	B (O	A) B(	SS.	Sulforte.	Total Iron,	Ş	Trite.		Remarks
Sample ID	Sample ID	Date	Time	Туре	Preserve		602/	801	80	826	928	8260	-	ŝ	701	<del> </del>			,
MW-04		1/17/03	·	UNTUR		27						) i	×	Х	Х	×	٧	X	
-12	·		<u>.</u> .			1	<u> </u>							Ш					
-13																			
-15		'			<b></b>		<u> </u>	<u> </u>					Ц				Ш		
-16							<u> </u>	<u> </u>											
-20.	-					<u> </u>									_	_	4		. ".
-21								<u> </u>						$\perp$	1.		_ _		
-26		]		_									1	$\dashv$			$\perp$	-	
MW-10 -11		9/18/03																	
		11					<u> </u>						4			_ /-	-4		
D -18		1/		4		1							1	4	4	4	4	ŧ	
ANCHEMØ4Ø1																			
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040						<u> </u>							ļ						
p			,	 	' 	,						$\dashv$							
-																			· · · · · · · · · · · · · · · · · · ·
Relinquished by W	5	ipany 15 Ipany		Date 1/18/03 Date	Time Time	Received by Received by	L	Fed //	j H	7	Comp Comp	PARTY DATE	9/	18/5	/24	Conia tA#At ∜#-Gi	r Bag	•	M=Metal Tube P=Plastic bottle V=VOA viel

outbland Tech. Services, Inc. 801 Telegraph Road, Suite L & K fontebello, CA 90640

Tel: (323) 888-0728

Fax: (323) 888-1509

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WEITE with report, PINK to courier.

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#### CHAIN OF CUSTODY RECORD

Lab Job Number

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Project Name/No., Angeles Chemical	Project Site Savaran P			·			E	asoli	iesel	OC.	.vgcn	38T	Sel	\$	ļ. `	8	Iron	4(7)	<sup>3</sup> ☐ Sample seals
Client	Lab	Sample	Collect	Matrix	Sample	No.,type* & size of container	8021	8015M (Gasoline)	8015M (Diesel)	8260B (VOCs)	(Q)	В (N	7.0s	4+1056	, ,	Sond	1 74	13	Sample seals Remarks
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southland Tech. Services, Inc. 1801 Telegraph Road, Suite L & K

viontebello, CA 90640

Tes: (323) 888-1509 Fax:

(323) 888-0728

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Bazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.



## **Analytical Report**

REPORT NUMBER: AL-4966-I

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-09, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METROD EPA
Chloride	241	0.1	325.3
Sulfate	250	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,600	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron	ND	0.05	236.1
Manganese	0.07	0.05	243.2
Carbonate	654	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	545	1.0	310.1
Nitrate	0.138	0.01	353.3

TDS= Total dissolved solids



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# **Analytical Report**

REPORT NUMBER: AL-4966-9 CLIENT: STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-10, 9/18/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	510	0.1	325.3
Sulfate	96	1.0	375.4
Sulfide, dissolved	5.12	0.05	376.1
TDS	2,330	5.0	160.1
Ferrous iron	3.20	0.05	Colorimetry
Iron (total)	52.3	0.05	236.1
Manganese	5.24	0.05	243.2
Carbonate	804	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	980	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids



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## **Analytical Report**

REPORT NUMBER: AL-4966-10

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-11, 9/18/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	383	0.1	325.3
Sulfate	26	1.0	375.4
Sulfide, dissolved	2.56	0.05	376.1
TDS	1,935	5.0	160.1
Ferrous iron	9.98	0.05	Colorimetry
Iron (total)	18.7	0.05	236.1
Manganese	12.5	0.05	243.2
Carbonate	1,176	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	955	1.0	310.1
Nitrate	ND	0.01	353.3

TDS=Total dissolved solids



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## **Analytical Report**

REPORT NUMBER: AL-4966-2 CLIENT: STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-12, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	57	0.1	325.3
Sulfate	85	1.0	375.4
Sulfide, dissolved	ND	0.05	<b>376.</b> 1
TDS	735	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	0.41	0.05	236.1
Manganese	2.49	0.05	243.2
Carbonate	<b>489</b> .	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	408	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids

Peter T. Wu Lab Director

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1761 N. Batavia St. Orange, CA 92865 (714) 921-1550 FAX: (714) 921-4770

## **Analytical Report**

REPORT NUMBER: AL-4966-3

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-13, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	99	0.1	325.3
Sulfate	230	1.0	375 <i>.</i> 4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,185	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	0.66	0.05	243.2
Carbonate	507	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	473	1.0	310,1
Nitrate	0.027	0.01	353.3

TDS= Total dissolved solids

Peter T. Wu Lab Director

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# **Analytical Report**

REPORT NUMBER: AL-4966-12

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-14, 9/16/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	142	0.1	325.3
Sulfate	202	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,205	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	0.42	0.05	243.2
Carbonate	444	2.0	Standard Method
			4500
Bicarbonate	ND	2.0	Standard Method
			4500
Total Alkalinity	370	1.0	310.1
Nitrate	0.012	0.01	353.3

TDS= Total dissolved solids

Peter T. Wu Lab Director

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# **Analytical Report**

REPORT NUMBER: AL-4966-4

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-15, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
·		۸.	204.2
Chloride	106	0.1	325.3
Sulfate	285	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,195	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	0.40	0.05	243.2
Carbonate	507	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	448	1.0	310.1
Nitrate	0.029	0.01	353.3

TDS= Total dissolved solids



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# **Analytical Report**

REPORT NUMBER: AL-4966-5

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-16, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	269	0.1	325.3
Sulfate	70	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,030	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	1.09	0.05	243.2
Carbonate	720	2.0	Standard Method 4500
Bicarbonate	ИD	2.0	Standard Method 4500
Total Alkalinity	600	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids



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# **Analytical Report**

REPORT NUMBER: AL-4966-13

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-17, 9/16/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	170	0.1	325.3
Sulfate	215	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,675	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	0.26	0.05	236.1
Manganese	ND :	0.05	243.2
Carbonate	570	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	475	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids

Peter T. Wu Lab Director

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## **Analytical Report**

REPORT NUMBER: AL-4966-7

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-21, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	142	0.1	325.3
Sulfate	230	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,296	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	0.64	0.05	243.2
Carbonate	552	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	460	1.0	310.1
Nitrate	0.019	0.01	353.3

TDS= Total dissolved solids

Peter T. Wu Lab Director

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## **Analytical Report**

REPORT NUMBER: AL-4966-11

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-18, 9/18/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	298	0.1	325.3
Sulfate	85	1.0	375.4
Sulfide, dissolved	1.92	0.05	376.1
TDS	1,655	5.0	160.1
Ferrous iron	4.55	0.05	Colorimetry
Iron (total)	14.4	0.05	236.1
Manganese	7.0	0.05	243.2
Carbonate	1,146	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	985	1.0	310.1
Nitrate	ND.	0.01	353.3

TDS= Total dissolved solids



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# **Analytical Report**

REPORT NUMBER: AL-4966-6

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-20, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	92	0.1	325.3
Sulfate	215	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	1,235	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ИD	0.05	236.1
Manganese	0.12	0.05	243.2
Carbonate	519	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	433	1.0	310.1
Nitrate	0.170	0.01	353.3

TDS= Total dissolved solids



## **Analytical Report**

REPORT NUMBER: AL-4966-14

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-23, 9/16/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	71	0.1	325.3
Sulfate	115	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	630	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	ND	0.05	243.2
Carbonate	282	2.0	Standard Method
			4500
Bicarbonate	ND	2.0	Standard Method
			4500
Total Alkalinity	235	1.0	310.1
Nitrate	0.177	0.01	353.3

TDS= Total dissolved solids



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## **Analytical Report**

REPORT NUMBER: AL-4966-15

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-24, 9/16/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	74	0.1	325.3
Sulfate	154	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	775	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	0.10	0.05	236.1
Manganese	0.07	0.05	243.2
Carbonate	306	2.0	Standard Method
			4500
Bicarbonate	МĎ	2.0	Standard Method
			4500
Total Alkalinity	255	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids



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# **Analytical Report**

REPORT NUMBER: AL-4966-16

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-25, 9/16/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	85	0.1	325.3
Sulfate	210	1.0	375.4
Sulfide, dissolved	ND	0.05	376.1
TDS	870	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	ND	0.05	236.1
Manganese	0.09	0.05	243.2
Carbonate	420	2.0	Standard Method
Bicarbonate	ND	2.0	4500 Standard Method 4500
Total Alkalinity	350	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids



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## **Analytical Report**

REPORT NUMBER: AL-4966-8

CLIENT:

STS Environmental Lab. 7801 Telegraph Rd. suite J Montebello, CA 90640 REPORT ON: Water sample MW-26, 9/17/03

DATE RECEIVED: 09/18/03 DATE REPORTED: 09/23/03

ANALYSIS	TEST RESULT mg/l	DET. LIMIT mg/l	METHOD EPA
Chloride	326	0.1	325.3
Sulfate	60	1.0	375.4
Sulfide, dissolved	16.6	0.05	376.1
TDS	1,460	5.0	160.1
Ferrous iron	ND	0.05	Colorimetry
Iron (total)	0.44	0.05	236.1
Manganese	5.21	0.05	243.2
Carbonate	804	2.0	Standard Method 4500
Bicarbonate	ND	2.0	Standard Method 4500
Total Alkalinity	670	1.0	310.1
Nitrate	ND	0.01	353.3

TDS= Total dissolved solids

Peter T. Wu Lab Director

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